BARCLAYS

Interest Rates Research

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Global Rates Weekly

The Apprentice: FOMC edition

- **In the coming weeks in the US, market attention will increasingly turn toward the succession decision looming at the Fed. We believe markets are largely priced for a status quo or a slight hawkish shift in the Fed's reaction function. Risk is of a dovish surprise. We recommend being long Apr'18 versus 'Jan 18 FF contract, buying 3m*2y straddles versus 3m*10y strangles, 10y spread wideners, MBS underweights and 1s4s energy-hedged breakeven flatteners.**
- **In Europe, despite no clear resolution on the Catalonia, peripheral spreads have continued to calm. We expect the ECB's reaction function and supply/demand factors into year-end to dominate the price action relative to politics.**
- **In the UK, the OBR's admission that it will be cutting its productivity forecast has implications for the medium-term issuance profile. A bleaker fiscal outlook, higher debt ratios and a persistent structural deficit should result in 10y swap spreads coming under pressure into November's fiscal forecasts.**

United States

The Apprentice: FOMC edition 3

In the coming weeks, market focus will increasingly turn toward the succession decision at the Fed. We believe markets are largely priced for a status quo or a slight hawkish shift in the Fed's reaction function. Risk is of a dovish surprise. We recommend being long Apr'18 vs. 'Jan 18 FF contract, buying 3m*2y straddles vs. 3m*10y strangles, 10y spread wideners, MBS underweights and 1s4s energy-hedged breakeven flatteners.

Euro Area

Politics is noise, ECB is key 28

Despite no clear resolution on the Catalonia, peripheral spreads have continued to calm. We expect the ECB's reaction function and supply/demand factors into year end to dominate the price action relative to politics. We retain reds/greens EONIA steepeners, short 10y Netherlands ASW vs. EONIA and long 10s/30s Spanish ASW box trades.

UK

Reasons to be fearful 36

The OBR's admission that it will revise its productivity assumption lower has significant implications for the medium-term public finance forecasts. A weak productivity scenario could lead to a £110bn cumulative worsening in the deficit forecasts; this would mechanically increase medium-term issuance by £112bn by FY2021/22.

Japan

Clear shift from foreign assets to Japanese equities 42

Japanese investors showed a reduced appetite for foreign assets and a more aggressive stance toward Japanese equities in H2 FY17, according to a Barclays investor survey.

INSTITUTIONAL INVESTOR ALL-EUROPE FIXED INCOME RESEARCH TEAM SURVEY 2018

Voting has begun for the 2018 Institutional Investor All-Europe Fixed Income Research Survey. Barclays would welcome your support. Please register at *Institutional Investor* to take part.

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VIEWS ON A PAGE

	US	EUROPE	JAPAN
Direction	• In the coming weeks, market attention will increasingly turn toward the succession decision looming at the Fed. • We remain neutral on duration and await better entry point before recommending longs. • We recommend being long Apr'18 vs Jan'18 FF contract.	• EUR: We are holding onto our bearish duration bias through reds/greens EONIA steepeners and short 10y Dutch ASWs in the EUR market. • GBP: September's MPC Minutes show a move to a more hawkish stance. Should the MPC signal a change of view on the continuation of principal reinvenstment, this should support a higher term premium . Sell the 10y sector vs. the wings.	• Neutral in the short term. • Bearish in the long term.
Curve/ curvature	• We are turning neutral on our recommendation to be in 2s10s curve-flatteners. • In relative value, we maintain our recommendation of being short mid-2019 securities from the 7y series versus those in the neighboring sectors. • In relative value, we maintain our recommendation to go long the OTR 30s versus old 30s to position for an uptick in liquidity premium.	• EUR: Keep reds/greens (1y1y vs 1y2y fwd) EONIA steepeners. • UK: Receive GBP 5y10yf in RV structures and GBP 1y1yf/1y2yf OIS steepeners, as uncertainty remains underpriced in the longer part of the money market curve. Pay GBP 6m6mf/1y1yf OIS.	• JGB 15s30s steepener. • JGB 2s10s steepener.
Swap spreads	• We are neutral on front-end swap spreads, with Libor-OIS unlikely to widen versus forwards and Treasuries rich to fed funds. • We recommend being in 5s-30s spread curve-steepeners. as the paying pressure on long-end spreads may rise. • We continue to recommend paying 10y swap spreads, given the potential for regulatory changes and potential ASW buying as the Fed balance sheets run off.	• The most recent widening in 30y ASW has been due to 6m/OIS basis widening, rather than a richening of 30y Gilt/OIS. We expect the ASW curve to come under steepening pressure in Q4 17. 10y ASW to underperform the wings. • EUR: We maintain short 10y Netherlands ASWs vs. OIS (Nether 0.5% Jul 2026).	
Other spread sectors		• EGBs: We maintain a long 10s/30s ASW box in Spain (long SPGB 2.9% Oct 46 ASW vs. SPGB 1.3% Oct 26 ASW).	
Inflation	• Forward 1y breakevens below 2% are cheap to our view of the trend in core CPI and the Fed's target; therefore, we believe breakevens offer structural value. • The August CPI reading was strong, but does not change our view that the underlying trend has weakened; we continue to see little near-term upside potential in breakevens. • We continue to recommend front-end breakeven curve-flatteners because the 1y sector offers better value than the 4y sector; we also recommend 10s30s breakeven curve-steepeners.	• EUR: We continue to recommend a short 10y10y vs. 5y5y euro HICPx swap. • EUR: We continue to recommend a 5y/10y euro HICPx swaps steepener. • UK: Long 10y in 30y RPI swap forward. • UK: Long IL22 breakeven as a medium-term inflation hedge. • UK: Short IL22/42 breakeven as a supply concession trade	• Slightly bullish.
Volatility	• We recommend buying 3m*2y straddles against selling 3m*10y strangles as a way to benefit from Fed Chair-related uncertainty. • We maintain a long 1y*10y EUR payers against 1y*10y USD payers as a rate and vol convergence trade as an ECB taper approaches. • We maintain a costless 1x2 6m*3y payer spread as a way to benefit from a small front-end sell-off over the next few months, while being protected from sharp rallies..	• Sell GBP 6m*2y high-strike payers, as short expiry vols on short tails appear rich. • Buy EUR 1y*10y payers versus USD 1y*10y payers to position for a convergence in rates. • Buy EUR 3m*2y1y versus 3m*1y1y 20bp wide payer spreads to position for a steeper front-end rates curve. • Sell EUR 2x4 cap-floor versus 2y*2y swaption straddles, as the trade carries extremely well. • Buy EUR 1y*30y straddles, as implied vols on long tails are extremely low.	• Sell 2y*1y straddles/buy 2y*5y straddles. • Sell 1y*2y payers. • Buy 1y*1y-1y*10y-1y*20y ATM receivers • Buy 1y*10y payers.
Agency MBS	• We recommend a tactical short in mortgages via FN 3.5s to position for the Fed Chair announcement. We continue to maintain a long in DW 3/FN 3.5 and DW 3.5/2.5 swaps. • We estimate that conv 30y speeds will rise 6% in next month's report.		

Source: Barclays Research

UNITED STATES: RATES STRATEGY

The Apprentice: FOMC edition

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In the coming weeks, market attention will increasingly turn toward the succession decision looming at the Fed. We believe markets are largely priced for a continuation of status quo or a slight hawkish shift in the Fed's reaction function. Risk is of a dovish surprise. We recommend being long Apr'18 versus 'Jan 18 FF contract, buying 3m*2y straddles versus 3m*10y strangles, 10y spread wideners, underweighting MBS, either outright or via the DW 3/FN 3.5 swap and 1s4s energy-hedged breakeven flatteners.

In the coming weeks, market attention will increasingly turn toward the succession decision looming at the Fed. Treasury Secretary Mnuchin noted that President Trump is likely to make his decision about the new Fed Chair over the next month. The current Chair, Janet Yellen, was nominated on October 9, 2013, and confirmed on January 6, 2014. Her term is set to expire on February 3, 2018, so we believe the decision to hike (or not) in December will largely be consistent with the reaction function of the current Fed. However, for 2018 and beyond, the reaction function may change, depending on the views of the new chair.

Recent press articles[1] have suggested that the list is down to four candidates: Jerome Powell (current Fed governor), Janet Yellen (current Fed Chair), Gary Cohn (director of National Economic Council), and Kevin Warsh (former Fed governor). According to the latest *Bloomberg* survey of economists, Kevin Warsh seems to be the favorite, followed by Powell/Yellen and Gary Cohn. Needless to say, it is impossible to rule out other candidates. For instance, articles have also mentioned John Taylor, Glenn Hubbard and Neel Kashkari as possible replacements for Chair Yellen.

Figure 1 summarizes the key views of the four leading candidates, based on their published speeches and interviews. We looked at various dimensions, including their stated beliefs around the role and conduct of monetary policy, its interaction with fiscal policy, regulation, and financial stability. How monetary policy is ultimately conducted under these Fed Chairs would obviously also depend on what the composition of the rest of the FOMC, particularly the Vice Chair and the mix of Fed presidents. Also, as we have learned from the Larry Summers experience, stated views by a candidate are not set in stone. At the time of his nomination in mid-2013, Summers was perceived as very hawkish as he had argued for a high NAIRU, lower potential growth, and a faster hiking cycle. But soon after, he was cautioning the Fed from raising policy rates amid "secular stagnation". With this caveat in mind, we still think the initial market reaction will be guided by the current perception that investors have with respect to the candidates.

There are a few things stand out with respect to these candidates.

First, Powell and Yellen have espoused very similar views and Chair Powell would be least disruptive for markets, as he is likely seen as the closest to status quo. He has argued that monetary policy should be forward looking and the Fed should not mechanically follow a rule-based policy. Like Yellen, he believes the current weakness in inflation is temporary, but is open to slowing down the pace of hiking cycle if inflation does not show signs of moving higher. He believes unconventional tools (balance sheet and forward guidance) have proven effective in providing accommodation. He believes the balance sheet would remain large in the long run as he sees the current floor system as "likely to be relatively simple and efficient to administer, relatively straightforward to communicate, and effective in enabling interest rate control across a wide range of circumstances". He may be a tad more open to tweaking

[1] http://www.politico.com/story/2017/10/11/jerome-powell-federal-reserve-chair-243679

regulation but has noted that "Changes will be about making bank regulation more efficient and more effective, and will not fundamentally change what we have done".

Kevin Warsh would be perceived as hawkish, at least initially, although his stated views do not preclude a change in direction

In our view, Kevin Warsh would be perceived as hawkish, at least initially, although his stated views do not preclude a change in direction. The hawkish aspects of his stated views involve advocating a lowering of the inflation target to 1-2% and not being supportive of QE as a tool. In his view, QE merely pushed up asset prices with no benefit to the real economy. He also appears to be in favor of incorporating financial cycles into the monetary policy strategy, which currently would argue for faster normalization. On the other hand, he has been very supportive of President Trump's agenda which he thinks could improve the prospects of the economy. He has also argued in favor of deregulation more forcefully than the status quo candidates. He has also made a case for adjusting short rates only when deviations are large which may even lead to a pause in the hiking cycle. Overall, we believe he would initially be perceived as hawkish but ultimately may not prove to be much of a change.

Gary Cohn would likely have the biggest potential to change market pricing, as he would not only be the most dovish choice, but market participants also view his nomination as unlikely

Finally, Gary Cohn would likely have the biggest potential to change market pricing, as he would not only be the most dovish choice, but market participants also view his nomination as unlikely. In the past, he has argued against diverging from what other central banks are doing due to the adverse implications of a stronger USD. In 2015, he even argued that with inflation below 2% and not likely to move higher, the Fed had no good reason to raise rates. His views on the importance of inflation in the Fed's reaction function are actually not that far from Neel Kashkari, who has been dissenting against hiking. His views on QE are less clear but in the past he has argued that unclogging the transmission channel (via looser regulation) is important to unlocking the benefits of liquidity. He is also very supportive of President Trump's agenda and, in our view, would be perceived as very dovish.

We have also summarized the views of other candidates who may be nominated for Fed Chair or Fed Governor. John Taylor would be seen as the most hawkish (especially if pared with Kevin Warsh) as he believes long term r* has not fallen and the Fed should follow a policy rule. Glenn Hubbard would be also be perceived as a hawkish addition to the FOMC as he has argued for rule-based policy. Marvin Goodfriend would likely be a centrist, although he has not been supportive of the Fed holding mortgage backed securities. Some market participants have also mentioned Neel Kashkari as a possibility and he would be the most dovish candidate, given his views on inflation.

Next, we discuss the implication for rates markets and the trade ideas which, in our view, offer asymmetric risk-reward over the coming month.

Key Views	Kevin Warsh	Jerome Powell	Janet Yellen	Gary Cohn
Fed's reaction function / Views on policy rules	"[We should] engage in a fundamental rethinking...The Fed's reaction function should be less sensitive to normal financial market ups-and-downs. Policy should adjust when deviations are large and significant. Concentrate on the financial cycle, especially take into account the credit cycle. "	He favors…" a forward-looking approach to policymaking where decisions also take into account expectations for how the economy will evolve relative to our goals. There is no consensus that any one rule is best, let alone that it would be desirable to… mechanically follow one rule. "	"Changes in interest rates influence economic activity and inflation with a substantial lag, Monetary policy should be set with an eye to its effects on the outlook for the economy. Rules cannot be applied in a mechanical way; their use requires careful judgments about the choice and measurement of the inputs into these rules. "	"We are part of a global monetary system. I am concerned by how much US rates can dislocate from the rest of the world, [...] we will see that in the value of the dollar. The question to me is: how strong can the USD be."
QE/Negative Rates	"Continued QE increases the value of financial assets like stocks, while doing little to bolster the real economy. Permanently holding [Treasuries] is 'fiscal policy in disguise'".	"With the support of extraordinary monetary accommodation, our economy has made substantial progress"	"Studies have found that our asset purchases and extended forward rate guidance put appreciable downward pressure on long-term interest rates and, as a result, helped spur growth...[negative rates] is not something on our list. "	"As central banks start to flood the market with liquidity, we need to be able to transmit that into main street; very concerned about negative interest rates throughout a lot of Europe "
Inflation / Inflation Target	"The Fed should establish an inflation objective of around 1% to 2%, with a band of acceptable outcomes. The current 2.0% inflation target offers false precision. We should not encourage policymakers to fiddle with NAIRU."	"Some of the recent weakness can be explained by transitory factors, and a continued tightening of the labor market should exert some upward pressure…Low inflation argues for continued patience. "	"...I currently think that this year's low inflation is probably temporary. A gradual approach is particularly appropriate in light of subdued inflation…we should also be wary of moving too gradually. "	" [Yellen had (in 2015)] no legitimate argument to raise rates without inflation being close to—or having some inkling that it's approaching—2 percent. "
Financial stability	"Textbooks presume the normal conduct of policy and that the prices of financial assets like stocks and bonds are broadly consistent with expectations for the real economy. Nothing could be further from the truth. Monetary policy should lean against the wind as micro- and macro-prudential changes are yet insufficient. "	"Low rates can lead to excessive leverage and broadly unsustainable asset prices. The areas where there are signs of excess are isolated. "	"Persistently easy monetary policy might also eventually lead to increased leverage and other developments, with adverse implications for financial stability."	"Valuations represent products that we use every day. The companies [with high valuations] have become part of our everyday existence, they have real cash flows. "
Bank deregulation	"Markedly better tax and regulatory policy is likely with the new administration. The line-drawing in the post-crisis era appears to be moving to favor macro-policies that elevate stability over efficiency. "	"Changes will be about making bank regulation more efficient and more effective, and will not fundamentally change what we have done."	"The core reforms …have substantially boosted resilience without unduly limiting credit availability or economic growth. We are…committed to evaluating where reforms are working and where improvements are needed to most efficiently maintain a resilient financial system. "	"We need to deregulate and cut down the regulatory process to grow jobs; U.S banks are the strongest in the world… That's a huge competitive advantage for U.S. banks, and I don't want to lose that. "
Potential growth	"The policy changes of the kind proposed by Congress and the Administration [regulatory reform, tax reform, spending reductions] would significantly improve the economy's growth prospects."	"We need policies that encourage labor force participation and investment in education and training, in infrastructure, and in businesses."	"It would be quite challenging for the US to reach the 3 percent growth target set by President Donald Trump."	"We don't think that a 2 per cent growth economy is good enough — we need to raise that."
Fiscal versus monetary policy	"We should reverse the trend that increasingly turns central banks into the general-purpose agencies of our governments. The Fed should recognize that American productivity, and potential economic growth, could improve significantly. "	"Long-term growth depends mainly on nonmonetary factors such as population growth and workforce participation, the skills and aptitudes of our workforce.... Fiscal and regulatory policies can have important effects. "	"I think it would be very desirable if a fiscal package had the potential in it to create incentives that would raise productivity growth."	"We think the tax plan is very stimulative for the US economy by bringing back American companies to America, having them produce products back in America... We're encouraging front-end investment. "

Source: Various news reports, WSJ, Bloomberg, CNBC, Federal Reserve, BIS, Hoover Institution, Barclays Research

Selected views of other candidates for Fed Chair/Governor

John Taylor is supportive of Trump's policies. Like Warsh, he perceives the administration's reform agenda as a driver of higher economic growth. We perceive him as hawkish:

- He has criticized the Fed for pursuing an activist policy approach. He has praised rule-based monetary policy of the '80s and '90s, claiming it improved economic performance.
- Not a proponent of QE, which he judged as ineffective at best and potentially harmful;
- His recent research finds no notable drop in r*, suggesting support for less-accommodative monetary policy;

Glenn Hubbard's views on fiscal and monetary policy are related to those of Warsh and Taylor. He is a strong advocate of the Fed communicating policy intentions (better):

- He believes the "Fed should also specify an operating framework. This could include, for example, following a variant of the Taylor rule"
- He is a proponent of "a mechanical path for normalization of the balance sheet";
- He recognized the importance of crisis measures, but "only if such decisions are explained clearly in advance."

Marvin Goodfriend would likely be more of a centrist when it comes to standard interest rate policy, yet may be slower to respond to crisis situations with unconventional monetary policy measures:

- He believes the Fed should present "the FOMC's independently chosen monetary policy decisions against a familiar Taylor-type reference rule for monetary policy."
- He has been critical of MBS purchases during QE (as he equates it with fiscal policy)
- He has made several suggestions to remove the zero-lower bound constraint, such as abolishing paper currency.

Neel Kashkari is substantially more dovish than current Chair Yellen, and has dissented against the 2017 FOMC decisions to raise rates (he was a non-voter in 2016):

- "I believe the most likely causes of persistently low inflation are additional labor market slack and falling inflation expectations," and: "we don't yet know if that drop in core inflation is transitory";
- He believes the FOMC should learn from experience that it should continue with caution before tightening policy further;
- He is not too concerned about financial instability: "some asset prices appear elevated – I don't see a correction as being likely to trigger financial instability."

Market implications and Trade recommendations

Overall, we believe markets are largely priced for a continuation of status quo or a slight hawkish shift in the reaction function as evidenced by the flat yield curve, low rate volatility, and prediction markets assigning high combined probability to Powell/Warsh being the nominee. Hence, while a hawkish outcome is possible, the risks appear skewed toward a dovish surprise. Even if Warsh is appointed the next Fed Chair, we see room for him to change course and be more supportive of accommodative policy.

We are inclined to fade any large selloff led by the long end, but would like a more favorable entry point

We are neutral on outright duration. Yields have drifted higher over the past month as investors started to price in the possibility of tax reform. In addition, yields can move higher driven by term premia, as uncertainty picks up about the Fed reaction function. Further, the upcoming ECB meeting has the potential to push rates higher. It remains unclear how the ECB plans to disentangle the outlook for asset purchases from the path of short rates. Any miscommunication could lead European rates to reprice higher, as was the case with the taper tantrum in 2013. Overall, we are inclined to fade any large selloff led by the long end, but would like a more favorable entry point.

We are turning tactically neutral on the 2s10s curve flattener recommendation

We have been recommending 2s10s curve flatteners since we believe the market is underpricing the path of short rates under most scenarios. On the other hand, long-term real yields look high, compared with current estimates of neutral rates. While we like the flattener as a strategic trade, we are turning tactically neutral. A Warsh nomination (or a more hawkish outcome) would lead to higher front-end yields. The move in longer rates will likely hinge on perceptions about whether he will push for acceleration in balance sheet runoff; however, the back-end selloff should be limited because of a likely strengthening of the dollar and adverse reaction in risk assets. Ultimately, the curve should flatten, but the knee jerk reaction may just be a selloff across tenors. On the other hand, a Cohn nomination would lead to a significantly steeper curve, in our view, as the likelihood of a pause in the hiking cycle in 2018 would increase significantly.

*We recommend being long Apr'18 versus 'Jan 18 FF contract, buying 3m*2y straddles versus 3m*10y strangles, 10y spread wideners, underweighting MBS, either outright or via the DW 3/FN 3.5 swap and 1s4s energy-hedged breakeven curve flatteners*

Below, we discuss trades that offer attractive risk-reward for the Fed nomination "event".

Long Apr'18 vs 'Jan 18 FF contract

- The market is pricing in a roughly 40% cumulative probability of the Fed hiking at the February/March meeting next year, which is high, in our view.
- The latest FOMC minutes suggest that low inflation is likely to result in a flatter trajectory of hikes next year rather than the Fed skipping in December. Hence, we expect the trade to perform under a "status quo" candidate (Powell/Yellen) and even more so under a dovish candidate (Cohn)
- On the other hand, even if the next Fed Chair is hawkish on the path of short rates, he is likely to give himself a transition period before raising rates again, limiting potential downside in this scenario.

Volatility: Buy 3m*2y straddles, sell 3m*10y strangles

- The vol market is underestimating the range of possible outcomes for the front end of the curve. If we were to buy just a 3m*2y straddle, one needs a nearly 16bp move in either direction before the trade breaks even. In a dovish scenario where hikes get completely priced out over the next year, 3m2y rates could be over 20bp lower, while in a hawkish scenario 3m2y rates could be similarly higher relative to forwards.
- On the other hand, we expect a far lower effect on longer rates such as 10y (less than 10bp in either direction). At the same time, our measure of implied/realized ratio for 3m*10y vols now stands at more than 1.2, which is attractive to sell to fund the purchase of a 3m*2y straddle.
- We think an attractive trade to benefit from Fed chair related uncertainty is buying 3m*2y straddles versus selling 3m*10y strangles. Instead of using the vol difference between 3m*10y and 3m*2y for premium intake in the form of an ATM straddle versus straddle trade, we recommend selling 3m*10y strangles instead (ATM +/- 8bp).

Swap Spreads: Maintain 10y spread wideners

- We maintain 10y spread wideners because our view remains that the potential for deregulation and bank purchases of liquid securities (which could lead to paying flows in swaps as the duration is hedged) should bias longer tenor spreads wider.

- The next Fed Chair's views on financial system regulation would also be significant. For instance, any move to loosen leverage rules for banks would raise the effective floor on long-end swap spreads because it would reduce the costs for banks to buy Treasuries. Among the potential candidates, Gary Cohn appears to be markedly in favor of deregulation as does Warsh, while Powell is open for tweaks to the current system.

- Swap spreads might be affected through the next Fed Chair's views on the Fed's balance sheet as well. Our view is that a fast pace of balance sheet shrinkage or a terminally low level of excess reserves would lead to a larger decline in high-quality liquid assets held by the banking system, spurring purchases of liquid securities such as US Treasuries. (See The *Great Unwind: Implications for banks and rates markets*, October 2, 2017, for details). Kevin Warsh has suggested that he is uncomfortable with a large balance sheet since it elevates financial asset prices with only a small pass-through to the real economy.

Underweight MBS, either outright or via the DW 3/FN 3.5 swap

- Mortgage spreads will likely widen in the event of a Warsh nomination, given the potential for an increase in rate volatility and his aversion to a large balance sheet.

- In such a scenario, an underweight in FN 3.5s versus Treasuries is likely to provide some potential upside, especially since the coupon is still trading approximately +0.8 ticks special, even as the Fed has started to wind down its balance sheet. A more hawkish Fed could reduce specialness in the roll. The coupon also exhibits the worst convexity in the stack and has outperformed the rest of the stack since September 1.

- A Warsh nomination could drive mortgages down 3-5 ticks hedge-adjusted (at least in line with the performance in the basis when tensions with North Korea escalated). Conversely, mortgages may not underperform a great deal if Cohn is nominated; for instance, over the past two weeks, FN 3.5s were only 2 ticks higher despite the strong rally in risk assets.

- For investors leery of taking an outright short position, we recommend a long in the DW 3/FN 3.5 swap. The swap has underperformed over the past few months, as demand for 30y mortgages has surged, but this should reverse in a sharp risk-off scenario. In addition, the trade offers a way to soft-short the basis without having to take a negative carry position (carry on the trade is +0.2 ticks a month based on our hedge ratios).

Breakevens: 1s4s energy-hedged breakeven curve flatteners

- The 1y breakeven is about 70bp cheap relative to Barclays' forecasts. While this is close to the five-year average, we believe there is potential upside risk in the near term because of the lingering effects of the hurricanes.

- While the breakeven curve is relatively flat, forwards in the 4-5y sector stick out as relatively expensive. With the market already priced for inflation to rise over the next several years, a slightly more dovish Fed may not cause expectations to rise. However, if the Fed is seen as more hawkish, forward inflation expectations are likely to decline.

- We also recommend tactical 10y breakeven shorts. There is risk to this position if the Fed nominee is more dovish than the status quo. However, we believe that since the Fed has been persistently missing its inflation target from below under a relatively dovish Chair Yellen, the reaction would be muted unless fiscal easing becomes likely.

INFLATION-LINKED MARKETS: UNITED STATES

30y preview: A liquidity event of only $5bn

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While we continue to recommend 10s30s breakeven steepeners, we do not find other supportive valuation factors for next week's 30y reopening. However, auctions are liquidity events and the tap is a relatively small notional, so it may not need much of a concession.

$5bn is a drop in the $1.26trn TIPS index bucket

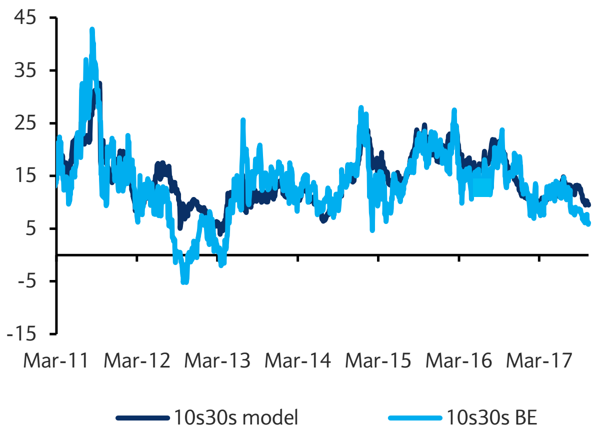
As widely expected, the Treasury announced that it would offer $5bn next Thursday in a reopening of the TIIFeb47s. The offering should be the last for the issue and for 30y supply until February 2018. While the issue appears cheap against our structural inflation view and versus 10y breakevens, we find little value otherwise. That said, 30y reopenings have been going well lately (Figure 7) as the issue sizes have been relatively small and the markets use the primary market as a liquidity event, thus, we do not expect much concession is needed for a smooth auction process.

We continue to recommend 10s30s BE steepeners

In *Sweet (but not too spicy) wings*, September 21, 2017, we recommended 10s30s breakeven curve steepeners because the spread had fallen below that justified by our model (Figure 1). The spread has stabilized above 5bp and we believe it is unlikely to flatten further, unless energy prices spike, and we continue to find value in the steepener. The month-end TIPS index extension, which we estimate will be 0.07 years as a result of the TIIFeb27 reopening, should also support the long end following the auction.

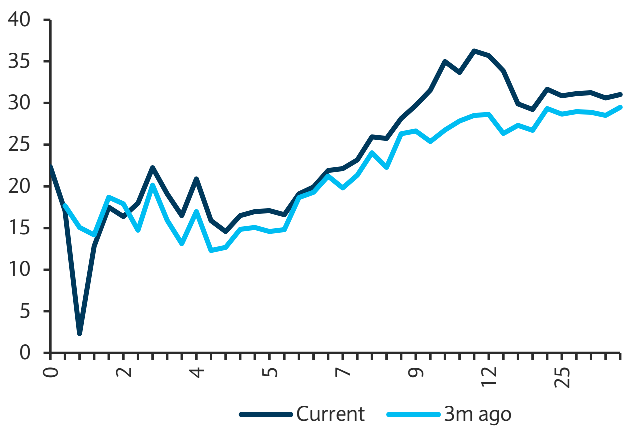
30y TIPS have also cheapened on ASW relative to their nominal comparators and that may attract some investors. However, the relative move has resulted from nominals richening, so this lessens the case. Furthermore, 10-15y TIPS relative ASWs have cheapened much more than 30s over the past 3m (Figure2). Therefore, we do not believe there is much relative value on ASW in the 30y sector.

FIGURE 1
10s30s breakeven versus Barclays model



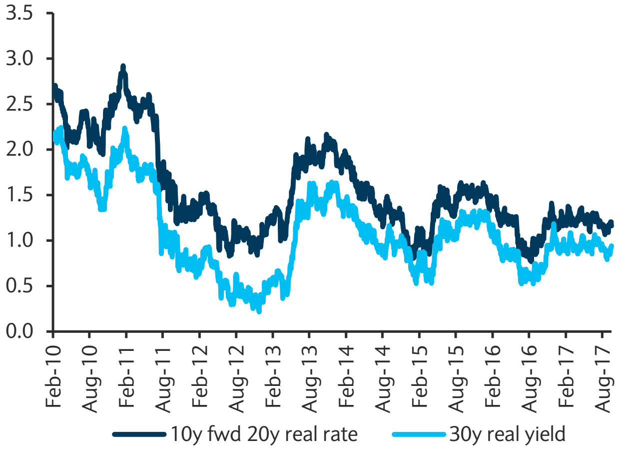
Source: Barclays Research

FIGURE 2
TIPS relative z-spread ASWs (bp)



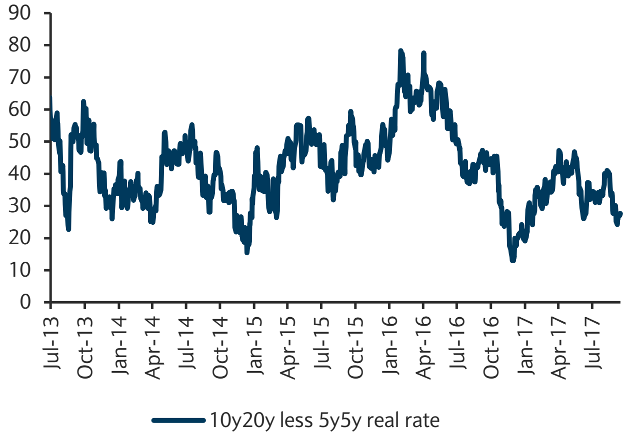
Source: Barclays Research

FIGURE 3
10y fwd 20y real rate (%, using Jan and Feb issues)



Source: Barclays Research

FIGURE 4
10y fwd 20y less 5y5y real rates (%, using Jan and Feb issues)



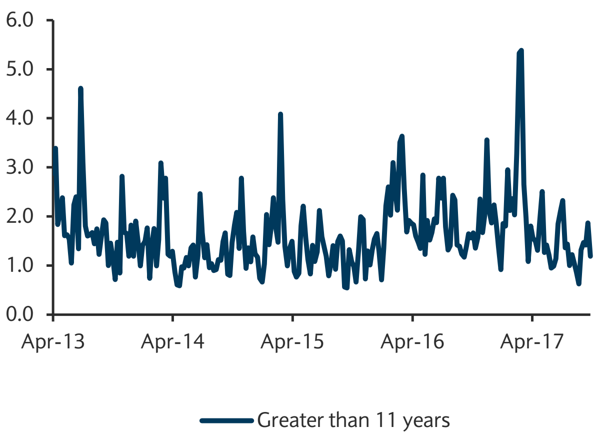
Source: Barclays Research

Getting real does not help

Long-end real yields have been stuck in a relatively tight range since last fall and long forwards have been even less volatile (Figure 3). At 1.2%, the 10y fwd 20y rate offers a decent term premium above most estimates, including the Fed's, of long-run r*, but it was more attractive at the beginning of last year. Additionally, there is a risk that higher Treasury issuance needs (from SOMA run-off or higher deficits) might lead to higher term premiums if long-end auction sizes rise as a result. This leaves us neutral on long-end real rates. Furthermore, while more hawkish rhetoric could prompt higher front-end rates, the belly to long-end forward curve is already quite flat (Figure 4).

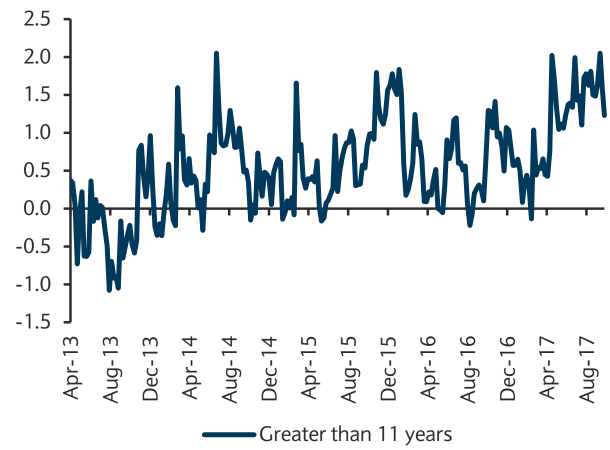
Secondary market trading volume in long-end TIPS has weakened recently, on average, relative to 2016. We see this as a mixed signal for the auction. On the one hand, low volumes might indicate less interest; a negative. However, if investors feel that secondary market liquidity is challenged, they might more be compelled to use the auction process to add to or establish longs; a positive. Dealer positions, though, are a clear negative, in our view. The latest data from the New York Fed show that primary dealers are already relatively long the sector; this may hinder aggressive demand from this base.

FIGURE 5
Average daily trading volume ($bn)



Source: FRBNY, Barclays Research

FIGURE 6
Primary dealer net long-end position ($bn)



Source: FRBNY, Barclays Research

FIGURE 7

30y TIPS auction statistics

Auction Date	Auction Type	Size ($bn)	Auction Yield (%)	Tail (bp)	Bid-to-cover Ratio	Dealer Take down	Indirect Bidder Participation Rate (%)
10/19/2017	Reopening	5					
6/22/2017	Reopening	5	0.880	-2.6	2.83	15.5	76.1
2/16/2017	Initial	7	0.923	4.8	2.25	23.6	69.8
10/20/2016	Reopening	5	0.666	0.6	2.28	21.6	69.4
6/22/2016	Reopening	5	0.905	-3.5	2.69	23.0	77
2/18/2016	Initial	7	1.120	5.0	2.11	26.9	70.3
10/22/2015	Reopening	7	1.200	-1.0	2.62	21.7	69.8
6/18/2015	Reopening	7	1.142	0.1	2.45	24.9	70.8
2/19/2015	Initial	9	0.842	-1.0	2.43	27.0	69.0
10/23/2014	Reopening	7	0.985	2.0	2.29	31.0	64.5
6/19/2014	Reopening	7	1.116	2.5	2.76	32.1	59.7
2/20/2014	Initial	9	1.495	2.3	2.34	38.5	56.5
10/24/2013	Reopening	7	1.330	-2.0	2.76	35.9	45.0
6/20/2013	Reopening	7	1.420	3.0	2.48	38.9	60.8
2/21/2013	Initial	9	0.639	2.4	2.47	31.6	54.5

Source: US Treasury, Barclays Research

UNITED STATES: AGENCY MBS

A quiet week for the basis

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Mortgages were mostly stable during the holiday-shortened week with the lack of any major market surprises. We are neutral on the basis over a longer horizon but recommend a tactical underweight over the short term for investors who would like to position for the Fed Chair announcement. This week, we discuss the Treasury's recent de-regulation proposals, take a closer look at last week's speed report, and provide a quick update on Fannie's Round-Lot Mega program.

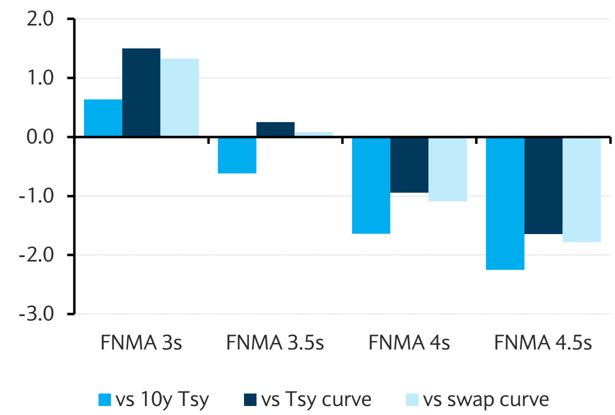
Mortgages mostly steady

It was a fairly quiet, holiday-shortened week for the basis, with the Fed minutes from the September FOMC meeting providing little in the way of surprises for the market. FOMC members cited the dampening effect from Hurricanes Irma and Harvey on economic activity as transitory, and many members thought that the weakening in inflation prints was at least partly caused by one-off factors. As a result, our economists continue to expect that the Fed will hike rates in its December meeting (see *September FOMC minutes: another rate hike in December remains more likely than not*, October 11, 2017).

With the lack of any major market surprises, mortgages have been mostly flat since last Thursday's close. FN 3s and 3.5s are 1.5 and 0.3 ticks higher, respectively, than their Treasury curve hedges, while FN 4s and 4.5s are 0.9 and 1.6 ticks, respectively, lower (Figure 1). However, as of the time of writing, the coupon stack was 1-2 ticks higher today, suggesting that the basis may end the week flat to slightly higher.

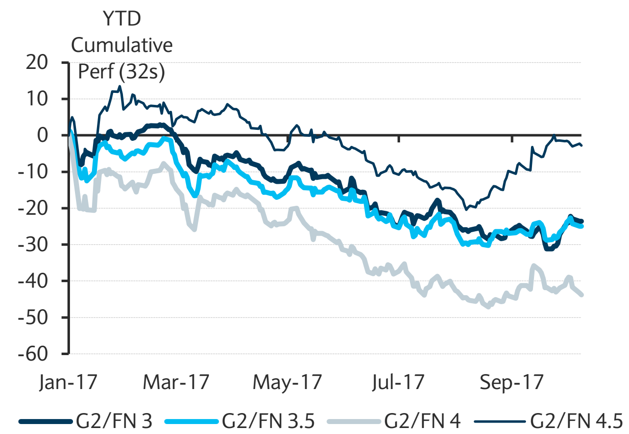
GLD/FN swaps were modestly lower w/w. GLD/FN 3s and 3.5s were 0.4 ticks lower, while the GLD/FN 4 swap was 0.1 ticks lower. Meanwhile, G2/FN swaps gave back some of their gains from the prior week (Figure 2). On a duration-adjusted basis, G2/FN 3s and 3.5s were 1.4 and 2.2 ticks lower, respectively, while the G2/FN 4 swap was 4.7 ticks lower. The G2/FN 4.5 swap was mostly flat for another week.

FIGURE 1
Mortgage performance since last Thursday's close



Note: Performance reflects price changes between October 5, 2017, close and October 11, 2017, close. Source: Barclays Research

FIGURE 2
G2/FN swaps take a breather this week



Note: Shows duration-adjusted performance of G2/FN swaps using 30-day empirical durations against the 10y on both legs of the swap.
Source: Barclays Research

DW/FN swaps were mixed over the past three trading sessions. The duration-neutral DW 2.5/FN 3 swap fell 1.2 ticks w/w, while the DW 3.5/FN 4 swap increased 0.9 ticks. Meanwhile, the DW 3/FN 3.5 swap was mostly flat during the week. We maintain our long recommendations in the DW 3/FN 3.5 and DW 3.5/2.5 swaps.

Tactically negative on the basis over the very short-term but neutral over a longer horizon

A nomination of Warsh for Fed chair could drive a sell-off in risk assets; investors could position for this possibility either through an outright underweight in FN 3.5s or a soft-short via the DW 3/FN 3.5 swap

Speculation has continued to swirl about who the next Fed Chair will be, with former Fed Governor Kevin Warsh in the lead for the nomination, according to a recent *Bloomberg* survey[2]. As our rates colleagues discussed in this week's Rates Strategy section, we believe that a Warsh nomination could drive a short-term sell-off in risk assets, given his perception as being more hawkish, while a Cohn nomination could drive a risk-on rally. While there are multiple ways to position for this event, we believe that a tactical underweight in the basis via FN 3.5s could be attractive over the short- term in the event of a Warsh nomination. In addition, a hawkish surprise from the ECB near the end of the month could be another negative risk event.

Investors who are (understandably) uncomfortable taking an outright short position on the basis may also want to consider a soft-short via the DW 3/FN 3.5 swap, which we have liked for some time. The swap should do well if risk assets sell off and volatility rises over the next one to two weeks and also has the advantage of being mostly flat carry.

However, we continue to be neutral on MBS over a longer horizon, given the improving technical backdrop for mortgages and our view that rates will remain range-bound through the rest of the year

Over a longer horizon, we continue to be neutral on the basis. As we highlighted in *US Agency MBS: The start of balance sheet normalization,* September 28, 2017, technicals for mortgages are likely to improve in Q4 17 and investors seem sanguine about the balance sheet run-off process. While a Warsh nomination or a hawkish ECB could add some short-term volatility to the markets, our rates strategists continue to believe that, longer term, the 10y will remain mostly rangebound, a positive for the basis.

US Treasury releases another proposal to deregulate the financial system

The authoring research analysts would like to thank Pratham Saxena for his assistance in connection with the preparation of this report

Last Friday, the US Treasury released the second in its series of financial deregulation proposals[3], this time focusing on changes that could be made to capital markets regulations to promote economic growth. While none of the Treasury's proposals directly mention agency MBS, with most of the Treasury's focus on the non-agency RMBS, CMBS, and ABS markets, there could be second-order effects on agency MBS if some of the proposals are adopted.

Highlights of the document regarding the securitization markets include:

- Under the current regime, banks that own every tranche in a securitization are often required to hold more capital than if they were to hold all of the underlying assets directly. The Treasury Department recommends that regulators rationalize bank securitization capital requirements, so that there is some alignment between holding securitizations and holding the securitized assets directly.
- Regulators should also reduce the risk-weight floor on securitizations under the SSFA method to 15% from 20% to mirror recommendations from the Basel committee and adjust capital requirements to account for securitizations purchased at a discount to par.

[2] "Warsh Leads Yellen, Powell in Tight Race for Fed Chair", *Bloomberg News*, October 12, 2017
[3] A Financial System That Creates Economic Opportunities – Capital Markets, U.S. Department of the Treasury, October 6, 2017

- Capital requirements on securitizations that are required to be consolidated onto a sponsoring bank's balance sheet (eg, credit card ABS) should take into account securitization exposures that have been transferred to third-party investors.
- Regulators should review the upcoming fundamental review of the trading book (FRTB) rules and consider the effect that this rule and other rules regarding bank trading books could have on secondary market liquidity. Capital requirements on securitizations held in the trading book should not exceed the bank's economic exposure to the securitizations.
- The Federal Reserve should adjust its CCAR and DFAST shock scenarios with respect to securitizations to better reflect the credit quality of the underlying assets and the capital market reforms that have occurred since 2008.
- High-quality non-agency securitizations, including non-mortgage ABS, that have historically exhibited strong credit quality should receive Level 2B designation under the LCR (liquidity coverage ratio) and the upcoming NSFR (net stable funding ratio) rules.
- Regulators should expand the types of assets that would qualify for exemption under the risk retention rules. CLO managers that purchase only loans meeting certain standards should also be exempt from risk retention. In addition, regulators should review whether the mandated risk retention holding period for certain securitizations should be shortened based on how long it typically takes for losses on the underlying assets to materialize.
- Regulation AB II disclosure rules should be relaxed, such that the number of required reporting fields is reduced. Regulators should also consider whether to reduce the mandatory three-day waiting period for registered deals from certain asset classes and should refrain from expanding the asset-level disclosure requirements to other sectors.

Adoption of proposals could, on the margin, reduce demand for agency MBS

If adopted, these proposals make non-agency securitizations more attractive for banks to own, potentially diluting some of their demand for agency MBS

While the above recommendations do not appear to have any direct effect on MBS, they do generally make non-agency securitizations more attractive for US banks to own. Since some of these other securitized asset classes offer higher yields than agency MBS, banks may, on the margin, be more incentivized to purchase these non-agency securitizations over MBS. In addition, if certain non-agency securitizations qualify for Level 2B treatment under the LCR rules, the need for banks to replenish their HQLAs as their excess reserves decline may diminish, again negating some of the demand for MBS.

That said, we believe that the effect of the proposals, even if adopted, will be marginal, given that Level 2B assets still receive a 50% haircut under the LCR rules and, therefore, are unlikely to contribute much to HQLAs. In addition, the recent proposal also reiterated the Treasury Department's recommendation from its June proposal that central bank reserves, US Treasuries, and the initial margin applied for centrally cleared derivatives be excluded from the denominator for the supplementary leverage ratio (SLR) calculation for US banks. These changes could free up bank balance sheet usage for other higher-yielding assets, such as agency MBS.

A quick update on Fannie's Round-Lot Mega program

In April, Fannie Mae announced that it would start to issue Round-Lot Megas grouped by vintage year and coupon, provided that there was enough investor interest in creating these pools (see *US Agency MBS: Mortgages decline as geopolitical risks rise*, April 20, 2017). Under the program, investors would exchange their FN pools from certain cohorts for a pro-rata share of a larger, shared Mega, and in theory, the FNCL float would gradually improve over time as larger, more homogenous pools made their way into the deliverable. The outcome would be similar to how Freddie's multilender Giants now represent the large majority of the deliverable for many production coupon TBAs.

Program has had a slow start thus far

Only three Round-Lot Megas have been issued thus far, with two of these pools issued when the program was first announced back in April

However, the program has had a slow start. Only three Round-Lot Megas have been issued thus far, and two of these pools were issued in April 2017 when the program was first announced. The first two Round-Lot Megas, FN BM2000 and FN BM2001, reference 2017 and 2016 FN 3.5s, respectively, while the third Mega pool, FN BM2002, references the 2017 FN 4 cohort and was issued just last month.

As we discussed in our April write-up referenced above, the collateral profile of these Round-Lot Megas is significantly more negatively convex than the respective cohorts that they are derived from. This is because investors who exchange their smaller pools for a pro rata share of a larger pool are likely to exchange only their worst-convexity pools, since the collateral profile of the overall Mega will not be known until the end of the month[4], and it would not make sense for investors to exchange a specified pool for a Mega with an uncertain collateral profile.

As a result, the average loan size and percentage of refinance borrowers in these Megas is typically higher than for their respective cohorts. Round-Lot Megas also tend to have a higher percentage of Quicken pools (Figure 3). On the other hand, LTV ratios, credit scores, and the owner-occupant percentages are generally similar between the Megas and the respective cohorts.

Round-Lot Megas have prepaid faster than the cohort

As a result of their worse convexity profile, the Round-Lot Megas that have been created so far have prepaid faster than their respective cohorts and faster than even non-specified collateral from the same cohorts. For example, FN BM2001, which references 2016 FN 3.5s, has recently prepaid at 12-14 CPR, compared with 10-12 CPR for all 2016 FN 3.5 pools and approximately 12 CPR for non-specified pools from the cohort (Figure 4). We saw the same dynamic when looking at FN BM2000 and FN BM2002 speeds.

Although the Round-Lot Megas do prepay faster than their respective cohorts, they have also exhibited a fairly stable speed profile, given their large size. This likely represents an improvement over some of the underlying pools, such as FN AS6828 in the FN BM2001 Mega, which prepaid at 0-2 CPR in the April – June 2017 factor date reports, only to surge to 17-18 CPR in the July and August reports and then fall back to 8.5 CPR in the latest October report.

FIGURE 3

Comparing the collateral profile of Round-Lot Megas and their respective cohorts

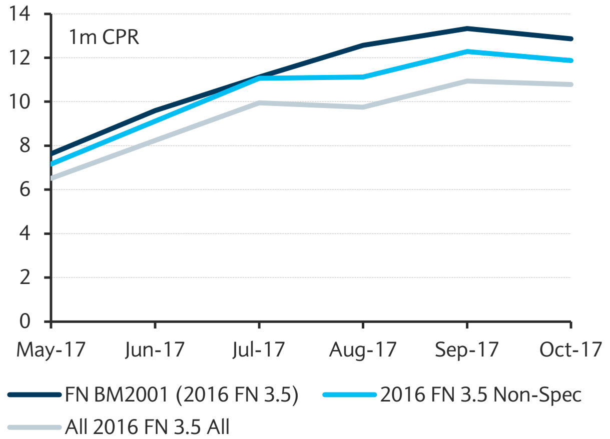
Metrics	FN BM2000	2017 FN 3.5 Cohort	FN BM2001	2016 FN 3.5 Cohort	FN BM2002	2017 FN 4 Cohort
Issue Amount ($bn)	8.1	94.8	6.9	121.8	3.9	98.5
WAC (%)	4.04	4.09	4.14	4.07	4.49	4.47
WALA (months)	9	4	18	14	8	5
Avg Orig Loan Size ($K)	292	253	291	214	304	219
Avg Curr Loan Size ($K)	287	248	280	206	298	214
Orig LTV (%)	75	78	78	78	78	79
Orig FICO (%)	747	758	743	738	742	737
% Owner-Occupied	87	93	88	88	87	87
% TPO	44	50	43	40	41	44
% Refi	54	30	50	46	40	35
% Quicken	16	5	11	9	5	7

Note: As of October 2017 factor date. Source: Barclays Research

[4] The settlement date for each Round-Lot Mega is two business days before the end of the month

FIGURE 4

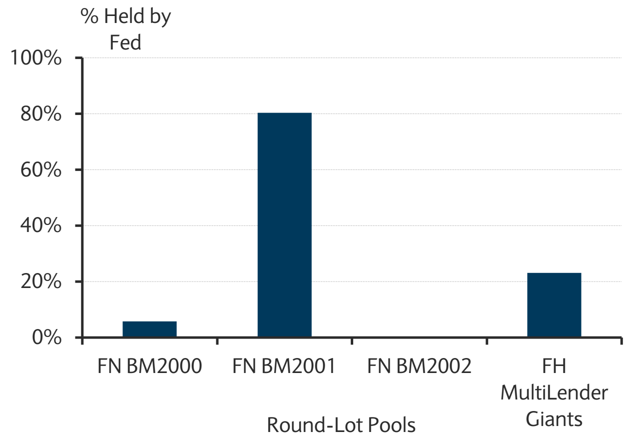
Comparing speeds on FN Round-Lot Megas



Note: "Non-Spec" pools represent the entire cohort after stripping out loan balance, investor, LTV, FICO, NYS, and PR pools.
Source: Fannie Mae, Barclays Research

FIGURE 5

Percentage of each Round-Lot Mega held by the Fed



Source: Federal Reserve, Fannie Mae, Barclays Research

A fairly large portion of the Round-Lot Megas that have been issued so far are now held by the Fed, suggesting that these pools could become a proxy for the TBA deliverable over time

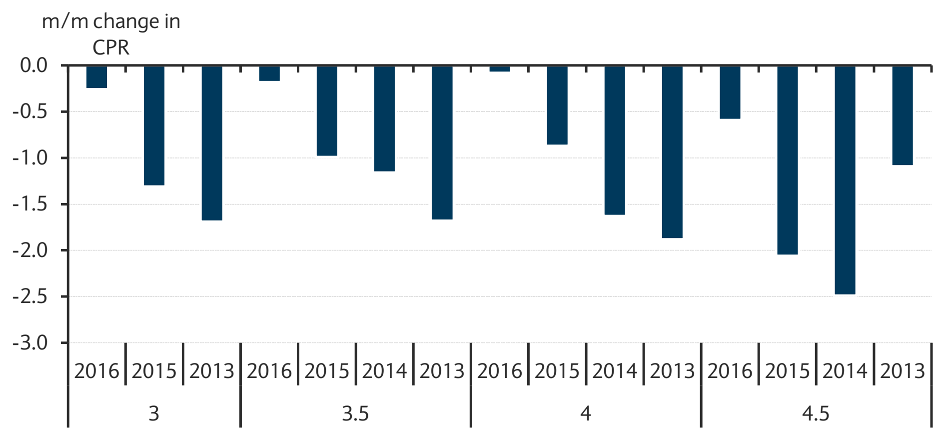
In addition, a substantial portion of some of these Megas have now ended up with the Fed, suggesting that they are becoming a proxy for the FN deliverable, as they were likely meant to be. We estimate that the Fed now owns approximately 80% of FN BM2001 and about 6% of FN BM2000 (Figure 5). By comparison, we estimate that the Fed owns over 20% of Freddie Mac's outstanding Multi-Lender Giants. Since the FN BM2002 Mega was only created last month, the Fed does not own any portion of the pool, although we suspect that a growing percentage of the Mega will end up in the Fed's portfolio over time.

A closer look at 2016 FN prepayments in the October report

October factor prepayments were released last week, showing that aggregate FNCL speeds dropped 9.5% m/m. However, some cohorts, particularly the 2016 vintage cohorts, exhibited only a modest decline in speeds, despite the three-day drop in daycount. As can be seen, while speeds for most cohorts fell 1-3 CPR, 2016 FN 3s, 3.5s, 4s, and 4.5s were mostly flat m/m (Figure 6).

FIGURE 6

2016 FNCL speeds were mostly flat m/m in October



Source: Fannie Mae, Barclays Research

FIGURE 7

Change in 1m CPR by loan size

m/m Δ in CPR	FN 3s	FN 3.5s	FN 4s	FN 4.5s
<85k	-0.2	-0.8	-2.2	-1.1
85k-125k	0.0	-0.1	-1.0	0.7
125k-200k	-0.7	-0.5	-0.4	2.0
200k-300k	-0.5	-0.7	0.0	3.7
>300k	0.0	0.6	0.8	-9.1

Note: Data shown for 2016 FNCL cohorts. Source: Barclays Research

FIGURE 8

Speeds on TPO loans increased this month

m/m Δ in CPR	FN 3s	FN 3.5s	FN 4s	FN 4.5s
TPO	-0.3	0.2	0.9	0.8
Retail	-0.3	-0.4	-0.7	-2.6

Note: Data shown for 2016 FNCL cohorts. Source: Barclays Research

When we dug deeper into the loan level data, we found that many of the higher loan size borrowers, especially those originated by third-party lenders, actually exhibited an increase in speeds over the month, offsetting the effect of the three-day drop in daycount. The increase in speeds was likely a result of a jump in refinancing activity among these borrowers, given the rally in rates from mid-August to the first week of September. While we had expected the effect of this increased refinance activity to show up in the November 2017 factor report, these borrowers likely experienced shorter lags in the refinancing process, given that they had only recently been originated and, thus, could more readily provide asset and income documentation. Mortgage brokers were likely also more aggressive about soliciting these borrowers for a refinance as a result of their larger loan sizes.

Loans with higher loan sizes, as well as those originated by third-party lenders, generally experienced a rise in prepay speeds during the month, likely a result of their shorter lags

When grouping the data by original loan size, we find that speeds for borrowers with loan sizes greater than $300K were either flat or 0.6-0.8 CPR higher (Figure 7). The exception to this was with FN 4.5s, where speeds declined during the month, possibly because of the weaker credit profile of these higher-coupon, larger-loan size borrowers. For 4.5s, the increase in speeds was mostly seen in borrowers with $125-300K loan sizes, who generally exhibited a better credit profile than the >$300K loan size borrowers.

Likewise, when grouping the data by origination channel, we found that 2016 vintage loans originated by third-party lenders generally experienced a rise in speeds, while prepayments dropped for retail-originated loans from the same cohorts (Figure 8). We did not find any consistent pattern in speeds when bifurcating by FICO or servicer.

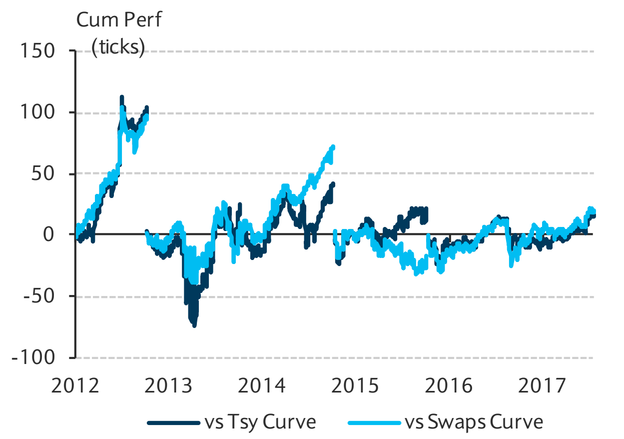
A quick look at MBS performance vs. swaps

Aside from H2 15, MBS hedged with swaps have performed in line with MBS hedged with Treasuries

As we discussed in *The Great Unwind: Implications for banks and rates markets*, October 2, 2017, while swaps used to be the preferred hedging instrument against MBS for many investors before 2015, they fell out of favor as a result of the significant tightening in swap spreads in H2 15. However, since that period, we find that there has not been much of a difference in the hedged performance or in the standard deviation of returns between MBS hedged with swaps or Treasuries. As can be seen, aside from H2 15, MBS excess returns (we use FN 3.5s as a proxy) versus swaps and versus the Treasury curve have been mostly similar over the past two years (Figure 9). MBS hedged with swaps actually outperformed slightly in 2014 as a result of the modest widening in swap spreads during the year, and so far in 2017, FN 3.5s hedged with swaps have slightly outperformed FN 3.5s hedged with Treasuries (+19.9 ticks versus +16.7 ticks).

FIGURE 9

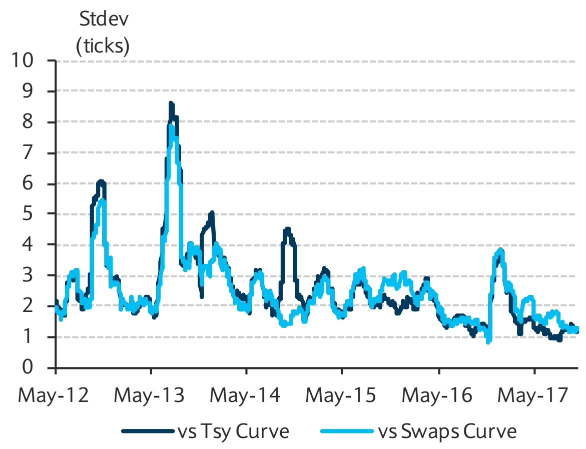
Annual hedged performance of FN 3.5s



Note: FN 3.5s are hedged with a combination of 2y, 5y, and 10y swaps or Treasuries. Source: Barclays Research

FIGURE 10

Standard deviation of hedged FN 3.5 returns



Note: Standard deviations calculated over a 30-day trailing period. Source: Barclays Research

The volatility in MBS excess returns versus swaps and the volatility in returns versus Treasuries have also been similar over the past five years

The volatility of daily excess returns has also been comparable between the two hedging strategies. Based on the standard deviation of returns over a trailing 30-day period, the volatility of FN 3.5 excess returns hedged with swaps has been only slightly higher than that of FN 3.5s hedged with Treasuries this year, and the two have been mostly similar over the past five years (Figure 10).

Investors who have a positive view on mortgages should consider using swaps as a hedging instrument for their long positions, while investors with a negative view on the basis seeking to short mortgages may want to keep Treasuries as their hedge

As discussed in the piece referenced above, we believe that the Fed's balance sheet normalization process will have only a modest effect on the absolute level of rates, as banks step in to buy Treasuries in place of the Fed. However, the loosening in regulations proposed by the US Treasury Department, together with increased bank demand for Treasuries as their excess reserves decline, could widen swap spreads. Our rates strategists believe that 10y and 30y swap spreads could widen 15-20bp over the next three years.

As such, investors who have a positive view on mortgages over the next year should consider using swaps as their hedging instrument when going long the asset class. Meanwhile, investors with a longer-term negative view on the basis, who seek to short mortgages, may want to keep Treasuries as their hedge.

UNITED STATES: MONEY MARKETS

Margin cash at the Fed and interest rates

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Last week, the Treasury released its latest report on financial market regulation.[5] Among the many recommendations related to capital markets, the Treasury asked the Fed to review its cash deposit program for financial market utilities (FMUs).

- **Dodd-Frank (2010) allows systemically important FMUs to leave their customers' margin cash on deposit at the Fed to earn IOER.**
- **Customer cash margin held at the Fed reduces some types of systemic risk.**
- **Overall FMU deposits at the Fed are currently too small to influence short-term rates. At less than $80bn they are smaller than the RRP and the Treasury's cash balance.**
- **Despite earning IOER, balances in these accounts have been steady since March. So far, they appear to be less volatile than either the Treasury deposit or the RRP.**
- **The Treasury has asked the Fed to review the rate it pays on these balances.**
- **FMU cash balances remove liquidity that would otherwise be held in bank deposits, repo and gov-only money funds.**
- **Growth in these balances and the resulting reserve drainage could add to upward pressure on short-term rates as the Fed's balance sheet normalizes.**

These balances may grow over time as all eight significantly important FMUs move to leave cash – their own as well as customer margin – at the Fed. But their influence on short-term rates will depend as much on their size as on the Fed's balance sheet normalization.

Dodd-Frank and FMUs

Systemically important FMUs can leave cash at the Fed to earn IOER

Title VIII of Dodd-Frank (Sec. 806.a) gave the Fed the ability to establish cash deposit accounts for systemically important FMUs. Systemic importance is determined by the Financial Stability Oversight Council (FSOC) based on the utilities' market share and its interconnectedness among other factors. There are currently eight systemically important FMUs.[6] Of these five are central clearing platforms, one is a securities depository, and two are involved in the payment and settlement of cash and securities. Designated FMUs can deposit their member's default fund contributions as well as customer margin at the Fed.

Importantly, Dodd-Frank allows the Fed to pay interest on FMU cash balances in the "same manner and to the same extent" as it pays to depository institutions. Significantly, the FMUs, unlike the GSEs, are able to earn IOER on cash they hold at the Fed.

But why keep their cash at the Fed?

FMUs and systemic risk

Potential systemic risk from FMUs comes from their capacity to concentrate risk from a number of small investors onto one large, interconnected platform. Similarly, margining behavior at CCPs can create asset fire sales that propagate and transmit risk to other markets and to other, unrelated CCPs.

[5] See, "*A Financial System that Creates Economic Opportunities: Capital Markets*", October 6, 2017
[6] They are: CME, FICC, NSCC, ICE, OCC, Depository Trust, CLS and CHIPs.

CCPs concentrate risk in part because clearing efficiency and counterparty risk reduction improves with the size and number of securities a FMU clears on its platform.[7] At the same time, however, this concentrates market risk on one central platform. Following the financial crisis, regulators have pushed more activity onto CCPs. Dodd-Frank requires all standardized over-the-counter (OTC) derivatives to be cleared with the result that trading volumes at nearly all of the eight designated FMUs have increased since 2010 (Figure 1).

Similarly, customer margining at the CCPs can propagate and transmit risk – in "doom loops." Margin calls push investors to sell their most liquid collateral or deplete their capital. Eventually as the sell-off continues, this becomes untenable and investors are forced to "fire sell" their remaining holdings. In turn, the low prices realized from the sale trigger more margin calls for other investors – potentially in other, unrelated markets. During the financial crisis a similar "doom loop" occurred in the bilateral repo market where a sharp increase in haircuts (margins) for less liquid collateral led to a "run" on repo.[8]

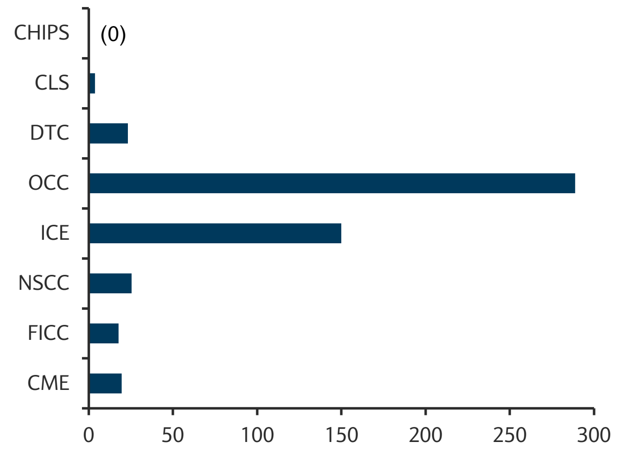
Reflecting their concerns about concentration risk, as part of its capital market recommendations last week, the Treasury asked the CFTC to review its stress testing procedures – with more focus on liquidity, operational, and cyber threat risk.

FMU balances at the Fed can help to reduce financial market risk

Although cash balances at the Fed do not directly reduce concentration risk or the potential that a series of margin calls could trigger asset fire sales, they can provide markets with some insulation. Recall that FMUs have some (limited) choice in how they hold their customer's margin: segregated deposits at commercial banks, gov-only money funds, and Treasury repo. Like these instruments, cash held at the Fed is immediately available. But *withdrawing* the cash from the Fed does not create the potential financial market strains that might occur if the cash is coming from liquidating bank deposits, gov-only money funds, or closing out Treasury repo positions. Indeed, the same margin calls that could shrink a bank's available cash could simultaneously prompt FMUs to shift more of their customers' cash margin to other banks or gov-only money funds in order to protect these balances – further reducing the bank's access to funding. Instead, although bank deposits, gov-only money funds, and Treasury repo are very safe and highly liquid assets, none has the absolute credit safety as a cash deposit at the Fed.

FIGURE 1

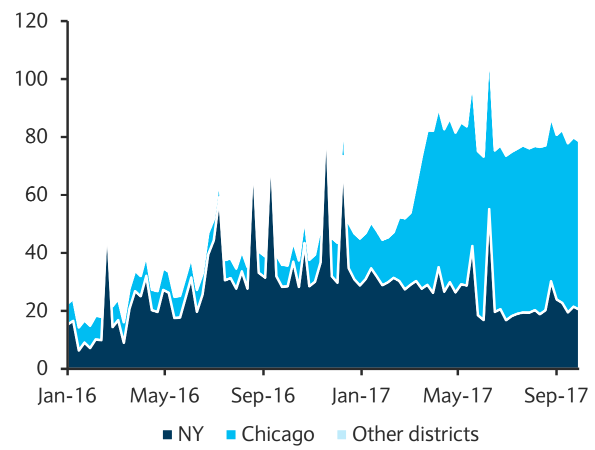
FMU activity (% change, 2016/2010)



Source: "A Financial System that Creates Economic Opportunities: Capital Markets", October 6, 2017, Barclays Research

FIGURE 2

Other deposits by Federal Reserve district ($bn)



Source: Federal Reserve

[7] See, for example, "Does a Central Clearing Counterparty Reduce Counterparty Risk?", D. Duffie and H. Zhu, Review of Asset Pricing Studies 2011, Volume 1: 74-95.

[8] See, "Securitized Banking and the Run on Repo", G. Gorton and A. Metrick, Yale ICR Working Paper No. 09-14, November 2013. This behavior was not observed in the tri-party market where haircuts held steady but funding was instead abruptly pulled. See, "Repo Runs: Evidence from the Tri-party Repo Market", A. Copeland, A. Martin, and M. Walker, Federal Reserve Bank of New York, August 2014.

FMU cash

Although the FMUs gained access to the Fed's balance sheet in 2010, the rule writing and review process meant that in practice they were not able to begin using the deposit program until early 2015. And although all eight of the systemically important FMUs are able to use the program, only four have so far signed up: DTCC, OCC, CME and ICE. Initially, these FMUs kept only their members' cash at the Fed – that is, the cash portion of their members' guaranty fund contributions. Beginning in February, however, ICE, and later the CME (in March) began to hold their customer's cash margin at the Fed. The ICE, CME and OCC use the Chicago Fed for their cash deposits while the DTCC uses the New York Fed.

Balances are at about $80bn…

The Fed's balance sheet data do not break out FMU cash balances. Instead these are lumped into an "other deposit" liability line item that includes the GSEs (un-remunerated) cash balances as well as those belonging to international and multilateral organizations. The regional allocation of these balances across the Federal Reserve district banks together with the annual reports for the FMUs allow us to surmise that most of the nearly $80bn in "other deposits" is probably FMU cash (Figure 2).

...and seem somewhat stable

At $80bn these balances are just 1.8% of the Fed's aggregate liabilities. They are smaller than average daily RRP use (of about $125bn/day). Likewise, they are significantly smaller than the Treasury's average daily cash balance of $250bn/day – that is, outside debt ceiling episodes. But unlike either the RRP or the Treasury's deposit, these balances seem to be much more stable with significantly less week-to-week volatility. Indeed, since February and the introduction of segregated customer cash margin accounts, the scaled (by the mean) week-to-week standard deviation in FMU balances has been about 19% compared with 47% and 29%, respectively, for the Treasury's cash deposit and the RRP. It is unclear if this stability from week-to-week will continue as balances rise.

Money market displacement

FMU balances drain bank reserves

FMUs are legally limited in their choice of places to put customer margin – investments need to be safe and liquid assets or accounts. Customer margin is typically held in commercial bank deposits, gov-only money funds, or against Treasury repo. As the FMUs shift cash into an account at their local Federal Reserve Bank, it leaves the money market where it was invested in repo and short-term unsecured paper such as CP and wholesale CDs. In this respect, FMU deposits at the Fed are no different than the Treasury's deposit. Both reduce bank reserves and drain market liquidity. Of course, the channels are different. Whereas FMUs are directly transferring cash from the market to the Fed, the Treasury's cash balance rises because the Treasury is selling more bills to the public to fund its larger cash deposit. But just like the Treasury deposit, the more cash held at the Fed in these accounts, in theory, the greater the upward pressure on repo and bank unsecured rates.

FMU cash deposits share some rough similarity with a proposal the FOMC briefly considered in 2014. In a two-sentence reference in the October 2014 FOMC Meeting minutes, the Committee discussed a plan to create deposit access on the Fed's balance sheet for non-banks through "segregated cash accounts (SCAs)".[9] In effect, banks would "rent" their access to IOER-earning balances at the Fed by borrowing cash from non-banks and collateralizing these borrowings with a similar amount of bank reserves held at the Fed. Banks would charge non-bank lenders a "fee" for their indirect access to the Fed's balance sheet. Thus, the bank and the lender would "share" the IOER rate. The proposal never gained traction and remains a conceptually interesting footnote.

[9] It was also discussed at a 2012 Federal Reserve Bank of New York Workshop on Excess Liquidity and Money Market Functioning, November, 19-20, 2012

In any event the RRP has been extremely successful in establishing a floor under market rates without the need for additional tools designed to lock up non-bank cash. More importantly, our sense is that the principal reason for FMU deposit access is its capacity to provide financial market insulation rather than any need to boost interest rate torque in money markets.

Of course, against the backdrop of more than $2.2trn in bank reserves, the $80bn in FMU deposits at the Fed are far too small to have much (if any) influence on short-term interest rates. But we suspect these balances will become more important as the Fed's balance sheet normalizes.

More important in the future

The effect on short-term interest rates of these balances at the Fed will depend on three factors. How much do margin balances grow in the next few years and how inclined the FMUs will be to place their customers' cash margin in accounts at the Fed. Separately, the overall market significance of these accounts will grow as the Fed's balance sheet shrinks and the level of bank reserves falls.

We examined the annual reports of the CME, ICE, OCC, and the DTCC (FICC and NSCC) for some of the details regarding cash margin balances and guaranty funds. These data are sparse and contained in the footnotes to the 10-K reports. This data thinness together with our unfamiliarity with the finer details of accounting make us somewhat leery of drawing too many conclusions from these data. Moreover, these figures are from the end of 2016, which pre-dates the shift in customer margin balances to the Fed.

We identify roughly $400bn in margin and guaranty balances across five FMUs

With these *caveats* in mind, the total amount of margin and guaranty fund balances that we can identify at these FMUs is between $350bn and $400bn. Across the five FMUs examined, overall margin and guaranty fund balances are up from 2015 (by 14%). We assume these balances will continue growing – although probably at a more modest pace as the bulk of the shift in OTC derivatives to exchanges has already occurred.

Of the $350-400bn in customer margin and guaranty fund contributions, just more than $100bn is held in cash. Details on how the cash is allocated are sketchy – a significant portion appears to be on held on deposit at commercial banks. Roughly $20bn (20%) was clearly identified at the Fed. This was entirely member cash. Since ICE and CME gained approval to hold customer cash margin at the Fed, balances increased by $60bn. As far as we can tell from the 10-K notes, Treasuries with maturities less than 12m make up the bulk of the non-cash margin held. However, data here are also sparse – some of these holdings likely include overnight Treasury repo.

To the extent that FMUs collect cash margin from their customers, we suspect they and their customers might prefer to hold it at the Fed. FMU cash on deposit at the Fed earns IOER, which is considerably higher than the alternative rates available in the market for this cash.[10] Indeed, bank deposit rates are considerably lower than gov-only money fund returns which in turn are below overnight GC rates.

But does the Fed need to pay IOER to attract FMU cash?

Should the rate on these accounts be lower?

In the Treasury's recent list of capital market recommendations it asked the Fed to review offering FMUs IOER on their cash balances. From the perspective of monetary policy implementation, it is not clear what the Fed would achieve by offering a lower rate on these accounts. At the moment, these balances are too small to be pressuring short-term interest rates higher. Moreover, the Fed doesn't need to pay a very attractive rate on these balances in order to pull cash out of the market in order to strengthen its ability to increase interest

[10] On a risk adjusted basis this is even more the evident.

rates. Instead, the RRP achieves this by establishing a floor under market rates – at 25bp below IOER. Separately, IOER – and the fact that it exceeds alternative market rates on cash – hasn't triggered a surge of FMU cash onto the Fed's balance sheet.

Instead as the objective behind creating these accounts is to reduce systemic risk, the rate paid should, in theory, be high enough to draw money onto the safety of the Fed's balance sheet. As a result, the Fed might be able to offer a sub-IOER rate on FMU deposits and still attract balances. Ultimately, paying FMUs – either at IOER or a lower rate – faces the same political scrutiny as IOER for banks. Congress is unhappy that IOER is higher than retail deposit rates, is paid largely to the biggest financial institutions, and mechanically reduces the Fed's remittances to the US Treasury.

Higher and more volatile

As we do not see the FMU deposits as monetary policy tools, their impact on short-term rates is mainly exogenous. Like the Treasury's cash balance, the FMU holdings are determined outside the Fed's policy decisions – balances may not rise automatically as the Fed pushes the effective funds rate higher. But removing bank reserves – whether deliberately through balance sheet normalization or exogenously via changes in Treasury and FMU balances – has the *potential* to increase short-term interest rates.

Volatility in FMU balances could create swings in short rates – especially as the Fed's balance sheet shrinks

Mechanically, the decline in bank reserves will be larger and faster than the roll off of the Fed's Treasury and MBS holdings because of growth in the Fed's non-reserve liabilities. Most of the focus on the Fed's non-reserve liabilities has centered on the largest one – currency in circulation. Indeed, currency exceeds $1.5trn and it continues to grow rapidly. But the Treasury and FMU deposits – while considerably smaller – are non-reserve liabilities too. As the Fed's Treasury and MBS holdings roll down and the level of bank reserves shrinks, swings in either the Treasury or FMU deposits will exert *more* pressure on short-term interest rates as they become bigger shares of the Fed's liabilities. If the FMU balances remain as stable as they have been since March, their influence on short-term rates may be muted – short rates would be higher, reflecting the overall decline in the level of bank reserves but they wouldn't be more volatile. Swings in FMU balances – like those caused by debt ceiling episodes in the Treasury's cash balance – could introduce more volatility and upward pressure on short-rate markets, especially as these accounts become a bigger portion of the Fed's liabilities.

However, as we pointed out recently, our sense is that the Fed's goal is to reduce the level of bank reserves only enough to remain in the "flat part" of the (bank) demand curve. That is where the spread between fed funds and the RRP rate is insensitive to changes in the level of bank reserves.[11]

[11] See *The Great Unwind: Implications for banks and rate markets*, October 2, 2017

DERIVATIVES STRATEGY

New Fed Chair may lead to front-end volatility

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We recommend buying 3m*2y USD straddles funded by selling 3m*10y strangles to benefit from potential moves in front-end rates caused by uncertainty about the next Fed Chair. In EUR, we recommend taking advantage of the richness in CMS spread option vols and the steepness of the rates curve to initiate EUR 1y SL CMS 30-5y 1x2 cap spreads. We maintain our 10y USD spread widening and 5s30s spread steepening views.

In the US, with limited headlines and market-moving events, implied vols remained largely unchanged. We now find implied vols on mid-expiry options (2-3y) on long tails (such as 30y) to be cheap compared with our fair value framework. Vols in this part of the surface are at the levels only seen in the pre-crisis era, even though various fundamental factors, such as higher economic data uncertainty and surprises and more policy uncertainty, suggest that vol levels should be higher than they are now. That said, with low realized volatilities dragging the entire vol surface lower, we would wait for a catalyst before going long vols on long tails.

In EUR, mid expiry vols on 7y-30y tenors look extremely cheap, in our view

In EUR, shorter expiry vols came off slightly over the past week, as the situation in Spain related to Catalan independence did not see a sharp escalation in tensions. Both EUR 3m*2y and 3m*30y came off by c.1bp/y over this week. Bottom right vols continued to outperform, with EUR 10y*30y rising c.0.5bp/y over the week. With implied vols remaining at very low levels, despite rates selling off over the past month, mid- to long-tenor vols across all expiries now appear cheap. In particular, mid-expiry vols on 7y-30y tenors look extremely cheap, in our view. We maintain our recommendation to buy EUR 1y*30y straddles, delta-hedged for large moves in rates.

*In the UK, we maintain our recommendation to sell GBP 6m*2y high-strike payers*

In the UK, too, vols remained largely unchanged over the week. We find top-left vols in the UK to be rich, and over-pricing the aggressiveness of the BoE in the near term. Consequently, we maintain our recommendation to sell GBP 6m*2y high-strike payers.

Buy 3m*2y straddles, sell 3m*10y strangles, as a way to benefit from Fed chair-related uncertainty at the front end.

We believe that the nomination of Fed Chair Yellen's replacement over the next few weeks may lead to a considerable range of outcomes for the front end of the curve. For instance, if Kevin Warsh were to be nominated, we believe that the market's near-term reaction would be a front-end selloff because it is likely to be perceived hawkishly. On the other hand, other potential Fed chairs, such as Powell or Cohn, will likely be perceived dovishly by the market. We believe that the vol market is underestimating the range of outcomes possible for the front

FIGURE 1
Relative value across vol surfaces

USD	2y	3y	5y	7y	10y	30y	EUR	2y	3y	5y	7y	10y	30y	GBP	2y	3y	5y	7y	10y	30y
3m	42	50	57	60	61	58	3m	19	24	34	38	42	43	3m	43	48	54	57	57	55
6m	45	53	60	62	64	60	6m	23	28	39	43	47	49	6m	46	50	57	60	61	58
1y	53	59	65	66	67	64	1y	31	36	45	49	53	54	1y	51	56	62	64	66	62
2y	65	67	70	71	72	67	2y	43	47	52	55	58	58	2y	60	63	68	70	70	66
3y	72	72	74	74	74	68	3y	52	54	57	59	61	59	3y	67	69	72	72	72	68

>3 (Rich) >2(Rich) >1 (Rich) <-1 (Cheap) <-2 (Cheap) <-3 (Cheap)

Source: Barclays Research

end of the curve. If we were to buy just a 3m*2y straddle, one needs a nearly 16bp move in either direction before the trade breaks even. We believe that in a dovish scenario where hikes get completely priced out over the next year, 3m2y rates could very well be 20bp lower, while in a hawkish scenario, 3m2y rates could be similarly higher relative to forwards.

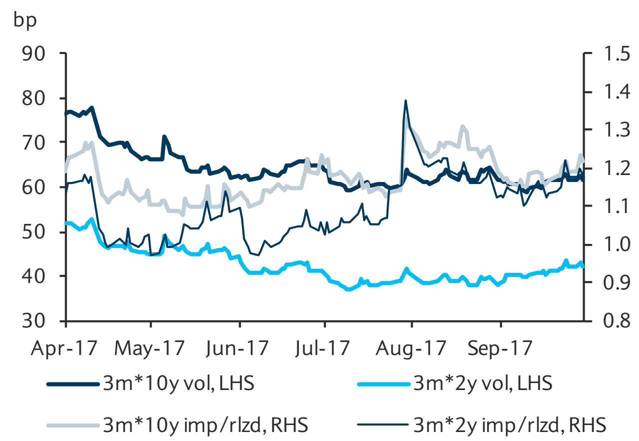
On the other hand, we would expect a minimal effect on longer rates, such as the 10y, because of the uncertainty about the Fed chair. Essentially, a dovish Fed could bring back some term premium into the curve, while policy rate expectations declined, while a hawkish Fed could make term premium more negative, while policy rate expectations increase. As a result, we would expect 10s to be relatively unaffected by the choice of Fed chair, although there are other sources of volatility possible for 10s. At the same time, our measure of implied/realized ratio for 3m*10y vols now stands at more than 1.2, which makes it attractive to sell them.

We think an attractive trade to benefit from Fed chair-related uncertainty is buying 3m*2y straddles versus selling 3m*10y strangles. A three- month expiry also covers other potential sources of uncertainty such as the December FOMC, although for investors wanting to focus on the Fed chair issue could even consider one-month expiries. There remains a considerable vol difference between 3m*10y and 3m*2y vols (Figure 1), although compared with the past year, the current level of the vol difference is somewhat on the lower side. However, given our combined view on 2s and 10s, the trade looks attractive. Instead of benefiting the vol difference between 3m*10y and 3m*2y as a premium intake in the form of an ATM straddle versus straddle trade, we recommend selling 3m*10y strangles. At current levels of the skew, the trade of a 3m*2y ATM straddle versus 3m*10y strangle trade at strikes of ATM+/- 8bp can be made. The trade is, thus, a bull-steepener (dovish fed) and a bear-flattener (hawkish fed) with an additional cushion of 16bp on the 10y rate.

The reason for selling 10y strangles as opposed to ATM straddles is how the wings are currently priced relative to ATM vols. Figure 3 shows a measure of the volatility smile constructed as a 1:2:1 fly between ATM-25, ATM and ATM+2 5 3m*10y vols. It shows that relative to the belly wing, vols are the richest that they have been on a historical basis, because of which, selling them as opposed to ATM 3m*2y vols makes sense, in our view.

FIGURE 2

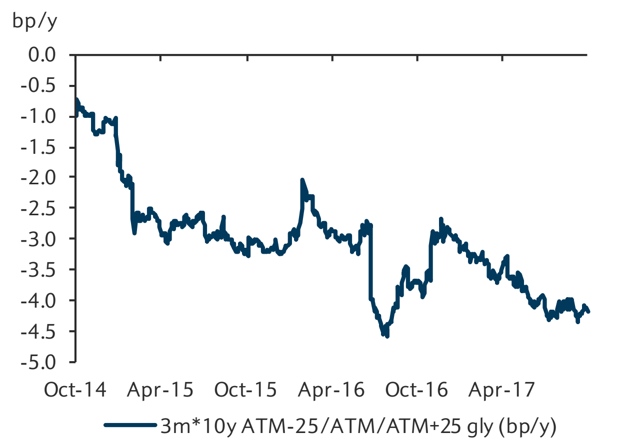
3m*2y vols are well below 3m*10y vols, although the implied realized ratio for the 3m*10y is higher than that for the 3m*2y



Source: Barclays Research

FIGURE 3

3m*10y wing volatilities are expensive relative to the belly



Source: Barclays Research

Buy EUR 1y SL CMS 30y-5y 1x2 cap spread

In EUR, while spread option vols have fallen over the past few months, along with the drop in vanilla swaption vols, they continue to trade at a considerable premium to delivered volatility. Even though EUR 1y SL CMS 30y-5y spread vol is quite low at c.32bp/y, it is still more than twice as high as the 60d realised vol of the 1yf 5-30y spread, Figure 4. In fact, the implied-to-realised ratio is higher than it has been at any time over the past year. As a result, we still favour sell the spread vol, even at the current low levels.

Given the fairly steep levels of the EUR 5-30y curve at present, we recommend selling the vol by initiating 1x2 cap spreads, in the following way:

- Buy €500mn 1y SL CMS 30-5y curve cap struck ATM (1.19%)
- Sell €1000mn 1y SL CMS 30-5y curve cap struck ATM+17bp (1.36%)

The trade carries extremely well

At mid-levels, the trade can be initiated at roughly zero cost. Given that the 1yf CMS 5-30y spread, at c.1.19%, is c.15bp flatter than the spot 5-30y curve, the trade carries extremely well if the forward rates roll down to the spot over the coming year.

On expiry, the trade profits if the 5-30y curve is 1.19-1.53% (ATM+34bp). It has zero P&L if the curve is flatter than 1.19% and stands to lose only if the curve steepens beyond 1.53%. In this regard, Figure 5, which plots the breakeven rates against the history of the EUR 5-30y curve, shows that the level of 1.53% is close to the steepest that the curve has ever been. The chief risk to the trade comes from a sharp near-term steepening of the curve. While possible, particularly if the ECB embarks on a very aggressive tapering of asset purchases, we find it unlikely, given the ECB's likely reluctance to surprise the market on the hawkish side, at least in the near term. Consequently, we are comfortable with the risk-reward on the trade.

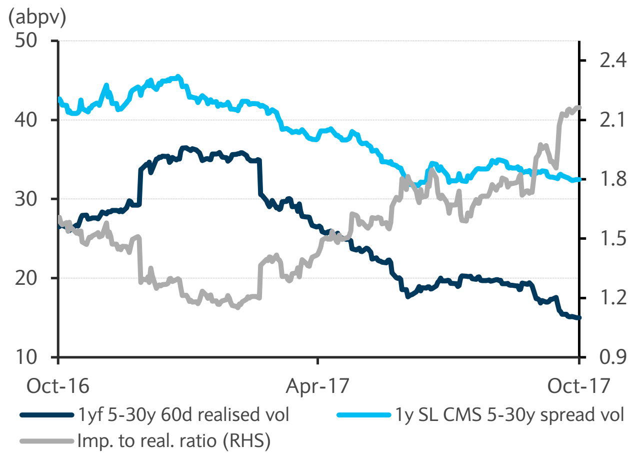
Swaps

The selection of the next Fed chair may also have an effect on swap spreads in the US over the next month. There are two channels through which this effect is likely to be felt.

First, the nominee's views on financial system regulation would be significant. For instance, Gary Cohn, director of the White House National Economic Council, has suggested that the administration would like to review the mechanisms that have reshaped the banking system

FIGURE 4

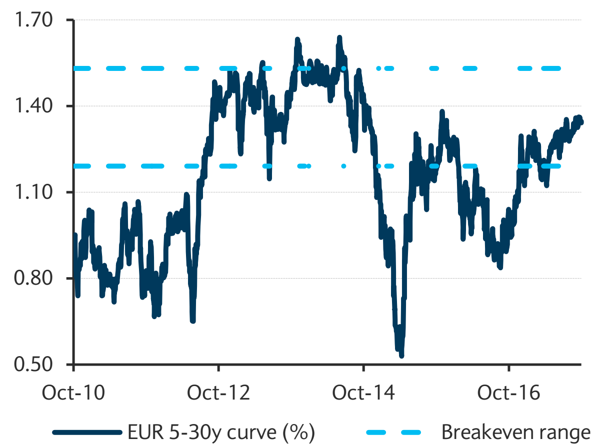
1y SL CMS 30-5y spread vol trades at a considerable premium to realized vol



Note: Implied spread vol is calculated by assuming unchanged implied correlation between 5y and 30y rates at the current level of c.80.5%.
Source: Barclays Research

FIGURE 5

Upper breakeven level of the trade is considerably high, compared to the historical range of EUR 5-30y curve



Source: Barclays Research

after the crisis, as well as subjecting Dodd Frank to a broader review. In short, he is markedly in support of deregulation. With the Federal Reserve being a primary regulator for large banks in the US, his views would have an effect on regulation if he were to be nominated. For instance, any moves to loosen leverage rules for banks (along the lines of an SLR exemption for Treasuries, reserves and initial margin, as was suggested by the Treasury's June report) would raise the effective floor on long-end swap spreads because it would reduce the costs for banks to buy Treasuries.

On the other hand, candidates that favour the status quo in regulation, such as Yellen, would affect spread to a lower degree. Former Governor Powell has suggested that he is open to tweaks to the specific rules to improve efficiency and reduce unintended consequences but keep the current broad regulatory framework intact, which would imply a less radical change for the market.

The second channel through which swap spreads might be affected is the nominees' views on the Fed balance sheet. Kevin Warsh, for instance, has suggested that an expanded Fed balance sheet elevates financial asset prices while doing little to bolster the real economy. Powell, on the other hand, believes that extraordinary monetary accommodation has led to substantial economic progress. Cohn's views are mixed, but mainly along the lines of fixing the transmission mechanism from easy policy to the real economy. The reason views on the balance sheet matter is because a fast pace of balance sheet shrinkage or a terminally low level of excess reserves would lead to a decline in the LCR of the banking system, spurring potential pressure on Libor-OIS as well as purchases of liquid securities such as Treasuries. Both of these factors could pressure spreads higher, since banks could partially hedge the duration by paying on asset swap (See *The Great Unwind: Implications for banks and rates markets*, October 2, 2017).

Overall, our view remains that the potential for deregulation and bank purchases of liquid securities (which could lead to paying flows in swaps as the duration is hedged) should bias longer-tenor spreads wider over the longer term. We maintain 10y spread wideners, and 5s-30s spread curve steepeners (which may additionally benefit from insurance paying flows in a rate sell-off/equity rally).

Unwound trades

- We are unwinding our recommendation to sell 3m*10y receivers against 3m*5y and 3m*30y receivers (See *Rising monetary policy uncertainty pushes rate vols higher*, June 29, 2017) because the options have expired.

- We are unwinding our recommendation to be long 3m*30y -1y*30y calendar spreads (See *Long vols through calendar spreads*, July13, 2017) given that the options have expired.

EURO AREA: RATES STRATEGY

Politics is noise, ECB is key

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Despite the fact that there has been no clear resolution on the Catalonia issue, peripheral spreads have continued to calm, with Italian spreads flat and Spanish spreads only 5bp wider compared to the levels seen just before the referendum. We expect the ECB's reaction function and supply/demand factors into year end to dominate the price action relative to politics. We retain reds/greens EONIA steepeners, core ASW tighteners through short 10y Netherlands ASW vs. EONIA and long 10s/30s Spanish ASW box trades.

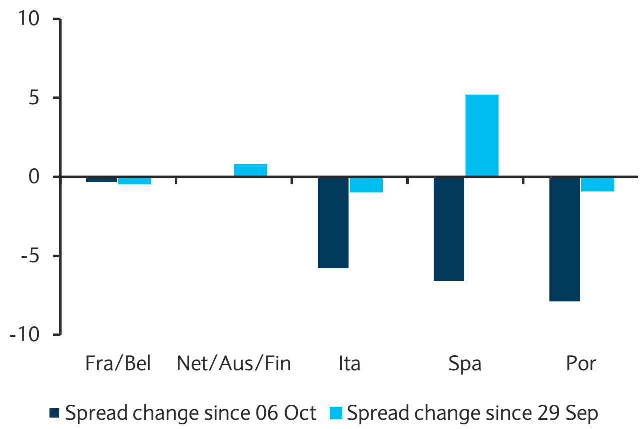
The past week has seen a broadly calmer backdrop for developed market duration. There were no significant market-moving data. On the central bank communication front, Fed minutes did not bring any surprises and were mainly in line with the September FOMC statement and the press conference. All in all, a December Fed hike seems to remain firmly in place. Overall, Bund and Gilt yields were little changed with Treasuries rallying a few bp.

Peripheral spreads have continued to calm despite the absence of a clear resolution on the Catalonia issue

The attention and focus in the EGB market remained on the political front. In Catalonia, regional president Puigdemont shied away from a firm declaration of independence and opted instead for a suspended version. He demanded discussion and negotiation with the Madrid government over the next few weeks before a final action from the regional parliament is made. This caused confusion in the media and among the central government with Prime Minister Rajoy demanding clarity from Catalonia. A triggering of the Article 155 is still a likely option for the central government. The key aspect will be whether a hard or a soft version is implemented, and as things stand the crisis could drag on for weeks. Our economists think regional elections seem a very likely outcome within the next few months (see "*Prime Minister Rajoy demands clarity before acting*", 11 October 2017).

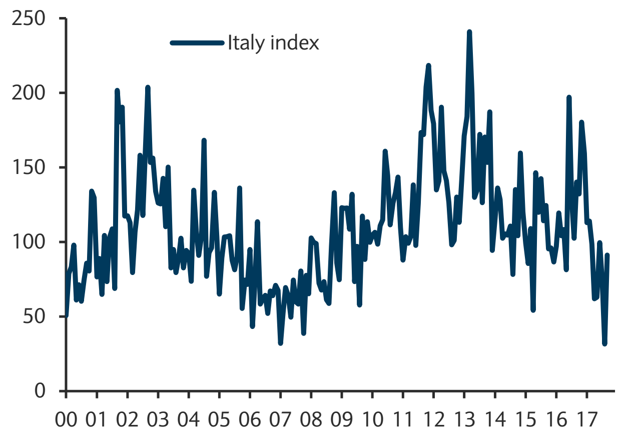
Despite the fact that there was no clear resolution on the topic, peripheral spreads have continued to calm, with 10y Spanish and Italian spreads tightening by c.6bp. After this week's moves, Italian spreads are flat and Spanish spreads are only 5bp wider compared to the levels seen just before the referendum. As we argued last week, the Catalonia issue is unlikely to be a source of significant risk premium for EGB and peripheral markets at this juncture with the ECB's policy announcements due in two weeks' time being much more

FIGURE 1
Italian spreads are flat and Spanish spreads are only 5bp wider compared to the levels just before the referendum



Source: Barclays Research

FIGURE 2
Policy uncertainty in Italy has picked up somewhat from the very low levels reached in August



Source: Policy Uncertainty index from www.policyuncertainty.com important. We maintain our credit curve-flatteners in Spain through a long 10s/30s ASW box. We think there is still further room for more flattening in the medium term in bear and bull spread environments.

ECB's reaction function and supply/demand factors into year-end are likely to dominate the price action over politics

Elsewhere on the political front, the Italian government called for a confidence vote on a new voting system, Rosatellum, which was put forward for discussion two weeks ago. While the approval in the Lower chamber looks likely, the passage of the law in the Senate looks more delicate. If the reform is rejected in either parliament, we do not expect snap elections as the budget season is about to start. The key point is that while the new proposed voting system is expected to bring more harmonisation of political party representation in both chambers, it doesn't make much difference with respect to guaranteeing post-election governability and reducing the chances of an anti-establishment coalition government gaining power (for more see "*Voting system reform in the last mile, once again*", 10 October 2017). As Figure 2 shows, policy uncertainty in Italy has picked up somewhat from the very low levels reached in August. While political risks in Italy can bring more volatility going into the Italian general election in March/April next year, the ECB's reaction function and supply/demand factors into year-end are likely to dominate the price action, in our view.

Market views and trades

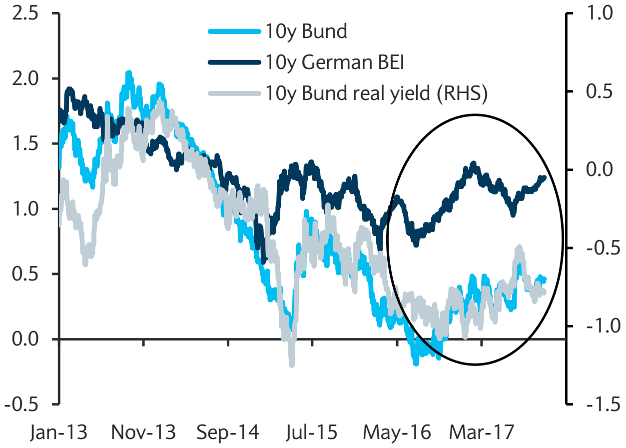
Bund yields have stabilised in a 40-50bp range over the past few weeks and are not far from our end-of-year forecast of 55bp. While Bund real yields look very negative by historical standards and given the health of the economy, a hawkish policy error by the ECB is needed for it to meaningfully reprice higher in yield terms, in our view. And given the ECB's caution about bond market tantrums and unwanted tightening of financial conditions in a low core inflation environment, the prospects for this do not look positive in the short term. We continue to recommend positioning for a policy error type of risk via being long 1y into 10y EUR payers versus the US.

In addition, for a more gradual increase of term premium on the money market curve, we keep our reds/greens EONIA steepener recommendation, which also has a bearish bias in Bund yields. Lower-for-longer type QE extension from the ECB alongside reinforcement of sequencing should also support this steepener, in our view.

If the ECB opts for a lower-for-longer QE extension (eg, €20bn for 12 months), it is still somewhat on the less dovish side in cumulative and frontloading terms for QE purchases relative to expectations, in our view. This should mean some German ASW tightening alongside some marginal widening in EGB spreads, which should be beneficial for the performance of our short 10y Netherlands vs. EONIA trade.

FIGURE 3

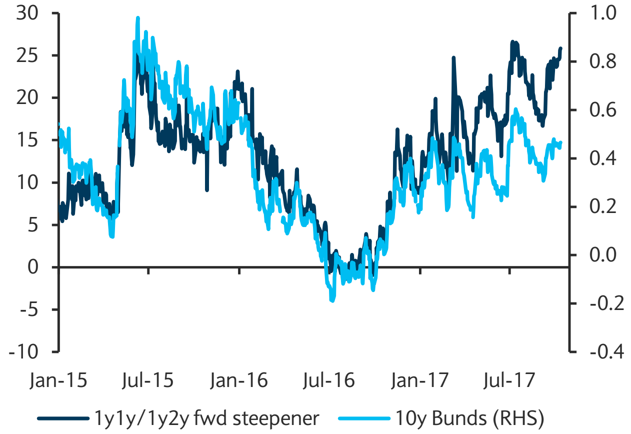
A hawkish policy error by the ECB is probably needed for Bund real yields to meaningfully reprice higher in yield terms



Source: Bloomberg, Barclays Research

FIGURE 4

We keep our reds/greens EONIA steepener, which has a bearish bias in Bund yields



Source: Bloomberg

Next week's cash flows

Slovakia auctions 7y and 10y bonds on Monday while on Tuesday Germany auction the 2y Schatz followed by a tap of the 30y Bund the next day for €4bn and €1bn respectively. France and Spain will auction bonds on Thursday the exact detail of which will be released at 10am and lunchtime on Friday respectively. Support for the market comes from €27bn of redemptions in Italy, Ireland and Portugal (Figure 5).

FIGURE 5

Barclays cash flow expectations for week beginning 16 October 2017

	Week Beginning	
	02-Oct	12.8
Weekly	09-Oct	0.0
Net	**16-Oct**	**-12.9**
Cash flow	23-Oct	-40.4
	30-Oct	-23.1

Net Cash Flow is issuance minus redemptions minus coupons. Negative number implies cash returned to the market.

Total issuance	18.4
Total redemptions	27.1
Total coupons	4.2
Net cash flow	-12.9

	Issuance	Redemptions	Coupons	Net Cash Flow
Germany	5.0	0.0	0.0	5.0
France	8.5	0.0	0.0	8.5
Italy	0.0	13.3	0.9	-14.3
Spain	4.5	0.0	0.0	4.5
Belgium	0.0	0.0	0.0	0.0
Greece	0.0	0.0	0.0	0.0
Finland	0.0	0.0	0.0	0.0
Ireland	0.0	6.3	1.6	-7.9
Holland	0.0	0.0	0.0	0.0
Austria	0.0	0.0	0.5	-0.5
Portugal	0.0	7.4	1.0	-8.5
Slovakia	0.4	0.0	0.1	0.3
Total	**18.4**	**27.1**	**4.2**	**-12.9**

Source: Barclays Research

EUROPE: MONEY MARKETS

Slightly less "special" Italian repo market

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Transactions of "special collateral" in the Italian repo market have declined since March, probably reflecting the reduction in short positioning on BTPs. Any increase in political uncertainty ahead of next year's general elections has the potential to invert the recent trend. Volumes on "general collateral" (GC) transactions have recovered only slightly. With the Italian GC repo rate likely to remain at (or slightly below) the depo rate, a significant increase in GC volumes is unlikely, in our view.

Reduction in "special" collateral transactions on the Italian repo market since March

The increase in volumes in the Italian repo market has been mainly driven by rising activity in transactions with "special "bonds, as shown in Figure 1 However, over the past two quarters, volumes on special collateral have declined – but are still at a high level by a historical perspective – while "general collateral" transactions have slightly increased

Rising trend in "special" transactions since 2011 reflects a structural "shorts" base on BTPs

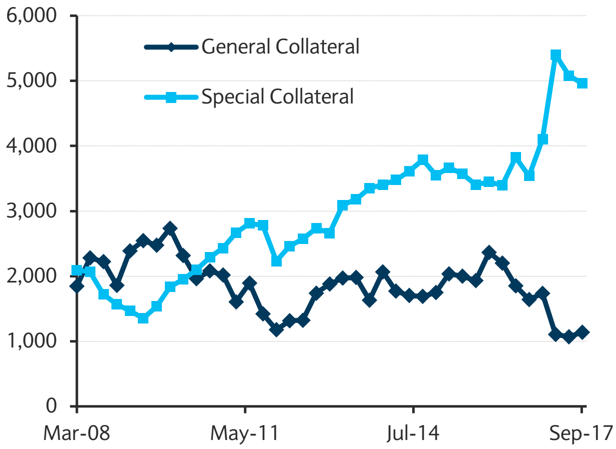
The volume of "special" transactions has been moving on a rising trend since mid-2011, decoupling "general collateral" (GC) transactions that have been broadly stable before the sharp decline throughout 2016. After bottoming out in Q1 17, GC transactions have moderately recovered over the past few months.

Short positions probably reached the historical high in Q1 17

The gradual increase in the short positioning on the Italian sovereign debt since 2011 is likely to be the main factor behind the upward trend in repo volumes on "specials". The displacement caused by the PSPP since the beginning of the program in March 2015 has probably contributed to reducing the availability of some BTPs in the repo market. The jumps in Q4 16 and Q1 17 are likely due to the sharp increase in short positioning in Italian sovereign debt reflecting high political and economic uncertainty ahead the Constitutional Referendum in December 2016. The outcome of the referendum did not favour the recovery in sentiment. In a context of high political uncertainty in Europe before the French elections, the Q1 17 spike was probably fuelled also by a larger usage of Italian government bonds by Italian banks in the collateral pool at the Bank of Italy, before the settlement of the last TLTRO II on 27 March where Italian banks' borrowing was about €64bn.

FIGURE 1

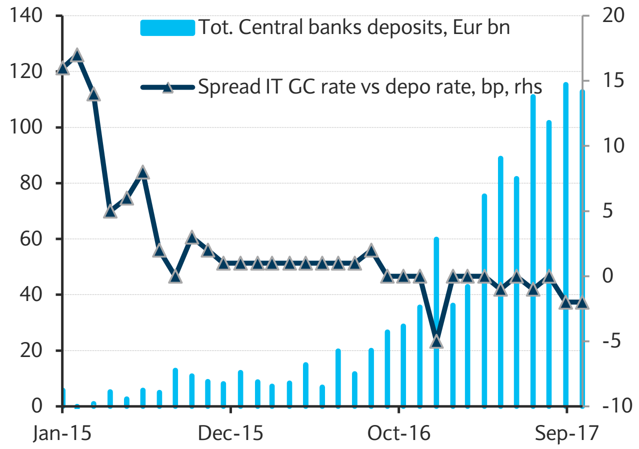
Italian Government securities – MTS repo transactions (€ bn): "special collateral" transactions have declined since March 2017



Source: Italian Treasury, Barclays Research

FIGURE 2

Central banks' deposits byItalian banks have increased as the IT GC repo rate has approached the ECB's depo rate



Source: Bank of Italy, ECB, Barclays Research

The improvement in market sentiment after the French elections has favoured the unwinding of some short positions

The drop in "special" bonds transactions in Q2 and Q3 17 might be related to a combination of factors. First of all, the market-friendly outcome of the French elections and the better-than-expected economic growth in Italy have contributed to the improvement in market sentiment that has led investors to unwind part of the short positions on BTPs. This has also favoured the tightening of the BTP/Bund spreads over the summer. Furthermore, banks are likely to have replaced part of the government bonds in the collateral pool at the Bank of Italy with other assets, thus making more BTPs available in the repo market. Finally, the larger usage of the Eurosystem's central banks securities lending program, as shown by the ECB's aggregate data, together with the issuance activity by the Italian Treasury with the reopening of some expensive off-the-run bonds at regular as well as exchange auctions, has probably helped to mitigate pressure on some specific ISIN. Anecdotical evidence shows that the number of Italian bonds trading special is significantly lower than at the beginning of the year.

The reduction in GC transactions reflects the decline in the Italian GC repo rate to or slightly below the depo rate

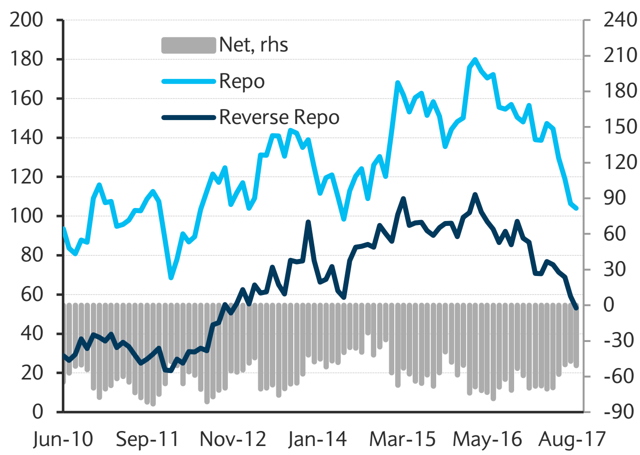
The GC transactions volumes started to decline in December 2015 when the Italian GC repo rate approached the depo rate, as shown in Figure 1. This is because the main participants in the Italian repo market are domestic credit institutions that are accustomed to lending out their excess liquidity in the repo market, as long as the GC repo rate is more attractive than (ie, at least equal to) the depo rate, otherwise it is more convenient for them to deposit at the ECB/Bank of Italy. Over the past two years, the usage of central banks' deposits by Italian banks has increased significantly, reflecting the tightening of the spread of the Italian GC repo rate versus the depo rate, which has become even slightly negative over the past few months, see Figure 2. This has also contributed to the decline in "General Collateral transactions" in the repo market, shown in Figure 1.

Italian banks' liquidity debtor positions vs. non-resident reflect banks' repo activity and not liquidity needs

Another perspective to understand the evolution of the Italian repo market is through the Italian banks' net foreign debtor position measured as the difference between repo and reverse repo operations with non resident via CCP (€50bn as of the end of August 2017). This is because of the Italian banks' significant holdings of BTP (the total of government securities holdings amounts to €370bn as of the end of June 2017, of which, more than 90% is formed of Italian sovereign debt, according to our estimates) that has made them the main provider of BTPs in the repo market.

FIGURE 3

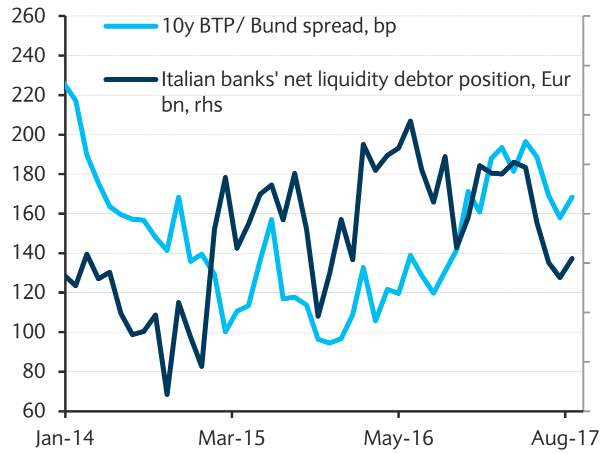
Italian banks' net liquidity debtor position has dropped sharply on the reduction in repo transactions (€bn)



Source: Bank of Italy. Barclays Research

FIGURE 4

Italian banks' repo activity looks one of the driving factors of the 10y BTP/Bund spread



Source: Bank of Italy, Bloomberg, Barclays Research

Such positions have declined since March probably because of lower activity on specific bonds due to the unwinding of shorts

When Italian banks repo their BTPs, the corresponding liquidity inflow represents a liquidity borrowing. This explains the net liquidity debtor positions versus non resident of Italian banks, despite the abundant excess liquidity (about €1.8trn at Eurosystem level, €112bn for Italian banks as of the end of September), the ongoing customer deposits inflows and the large usage of TLTRO by Italian banks (€252bn). Borrowing cash in the repo market is very attractive (given the low level of repo rates at the depo facility or even below), compared to the ECB's MRO (at the refi rate). However, we believe that the high level of the net exposure and its monthly volatility are explained not only by very short-term borrowing needs, but also by Italian banks' activity in providing BTP, given the demand for "special" BTPs related to the market's short positioning on the Italian sovereign debt. The deep negative level of repo "special" rates has made it attractive for Italian banks to lend out their BTPs when they become "special" and invest the resulting liquidity inflow at the GC rate or park at the central bank's deposits at the depo rate (depending on which rate is more attractive).

As shown in Figure 3, the net liquidity exposure has declined since March 2017 (from about €70bn, close to the highest level hit during the euro zone debt crisis in 2011, to €50bn as of the end of August) with part of the move possibly related to the unwinding of short position on BTPs (meaning less demand of specific bonds in the repo market), which is consistent with the Italian Treasury's data on the reduction of volumes on "special bonds" transactions since March 2017,.

Interesting correlation between BTP/Bund spreads and Italian banks' liquidity exposure

There is a quite an interesting relationship between the evolution of the BTP/Bund spreads and the net liquidity exposure of Italian banks, which could be used as a broad indicator for the demand for specific BTPs in the repo market (see Figure 4). In particular, the tightening of the spreads since May looks strongly correlated with the reduction in exposure over the same period.

The likely increase in political uncertainty ahead of the elections could reverse the recent trend…but more likely in Q1 18

With general elections likely to be held in March/April next year, we do not regard the recent reduction in short positions as the beginning of a new trend. The likely increase in political uncertainty as the elections approach could lead investors to re-initiate their "shorts" on Italy that would increase the activity in "special bonds" in the repo market and contribute to the widening of the BTP/Bund spreads. However, this might happen in Q1 18 because of the seasonal reduction in net supply and market liquidity in the final part of the year that might limit investors' appetites to rebuild their short positioning in the very near term.

INFLATION-LINKED MARKETS: EURO AREA

Complacent front end

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Pricings at the front end of the cash and swap breakeven curves suggest the market could react strongly to downside surprises in inflation prints in the coming months, especially if y/y inflation drops below 1%. In the context of a likely reduction in APP, the bearish effect of lower y/y inflation, even if driven by base effects, could be amplified.

The very short end of the euro area inflation curve, in both cash and swaps, has richened over the past three months. Part of this is mechanically linked to a rally in oil futures. In addition, we think the market is no longer (or only marginally) concerned about a renewed fall in inflation. A possible explanation is that the doom and gloom scenario of deflation that was perceived as realistic a couple of years ago has been averted. Furthermore, core inflation has been in a relatively tight range since mid-2015 and has even broken out to the upside this year. As a result, while the perceived balance of risks over the short to medium term has not shifted into the positive zone yet (the euro HICPx 1y forwards strip up to the 5y sector is still low and not particularly steep), it has come a long way from negative territory. In the back end of the euro HICPx swaps curve, forwards are already pricing inflation well above the ECB's target. However, that sector, where hedging typically occurs, tends to be driven mainly by demand/supply dynamics, rather than pure expectations.

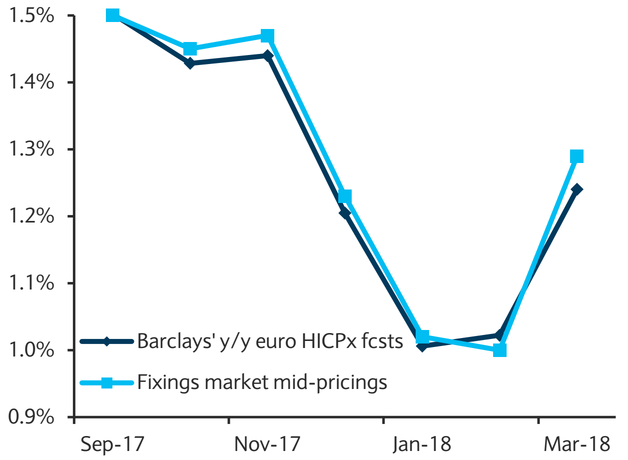
The front end has richened in swaps and cash

We have highlighted recently that the resets curve is now in line with our economists' forecasts for the upcoming fixings, in contrast to a usual discount. Also, the 2018 linkers now trade at only a very small discount versus inflation swaps. For instance, assuming the resets curve's projections are realised, we calculate that the OBL€i18 and OAT€i18 offer just above 20bp extra yield versus similar-maturity nominals. The BTP€i18 stands out as even more expensive, with barely 10bp of discount. What we find notable is the fact that the BTP€i18 has outperformed close to 20bp versus the inflation swaps curve over the past month, while the corresponding point in swaps is up about 15bp itself.

Sharp moves in y/y inflation tend to affect breakevens

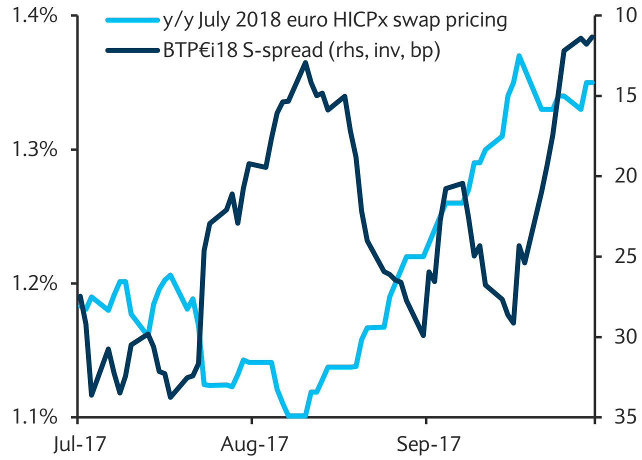
All in all, the dynamics and the low, or lack of, discount at the short end of the curve suggest some downside risks to the overall market. Over the coming months, y/y inflation is set to fall sharply. This is driven by base effects and is priced in. However, whether driven by base effects or not, sharply falling or rising y/y inflation in the past has tended to drive sentiment

FIGURE 1
Y/y inflation set to drop sharply at the beginning of 2018



Source: Bloomberg, Barclays Research

FIGURE 2
Front-end cash and swaps richening lately



Source: Barclays Research

even in long-dated maturities. Should the upcoming prints surprise to the downside, the fact that the front end is not pricing in any discount versus forecasts could prompt the market to reassess swiftly its current complacent pricing of the balance of risks. Furthermore, at current pricings, downside surprises to prints would be equivalent to January and February y/y inflation potentially printing below 1%. The psychological effect of sub-1% y/y inflation is a genuine risk, in our view. Also, we believe some speculative investors tend to position for a repeat of the market's past dynamics ahead of sharp moves in y/y inflation that are driven by base effects. In thin markets, such positioning by fast money investors can have a self-fulfilling effect on breakevens.

A reduced pace of APP is likely to weigh on breakevens

We also continue to see a risk to breakevens from a likely reduction in the pace of APP. We still believe that although purchases in linkers have seemingly been calibrated to minimise any positive or negative mechanical support on breakevens, the buying flows did have a positive bias. Therefore, if the pace of reduction in APP is perceived as significant, the bearish effect on breakevens could be large, especially in a context of falling y/y inflation. Issuance has also been relatively high in DV01 terms since QE started. If issuers do not adapt their linker issuance strategy to a reduced pace of APP, supply events will likely be challenging for the market.

We therefore still see the risks as being more to the downside in the near term and maintain a bearish view on breakevens.

UNITED KINGDOM: RATES STRATEGY

Reasons to be fearful

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The OBR's admission that it will revise its productivity assumption lower has significant implications for the medium-term public finance forecasts. A weak productivity scenario could lead to a £110bn cumulative worsening in the deficit forecasts; this would mechanically increase medium-term issuance by £112bn by FY2021/22.

The OBR has announced that it plans to revise its productivity growth assumption significantly lower

The Office for Budget Responsibility's *Forecast Evaluation Report* makes for some uncomfortable reading and calls into question the rationale for the MPC's view that the Bank rate needs to rise as early as November. The MPC has argued that the reduction in trend growth and the erosion of slack largely via the drop in unemployment signal that the economy is more sensitive to higher inflation. The MPC points towards accelerating wage growth and a hoped-for recovery in productivity that would mean that it can begin a tightening cycle. However, the OBR wrote:

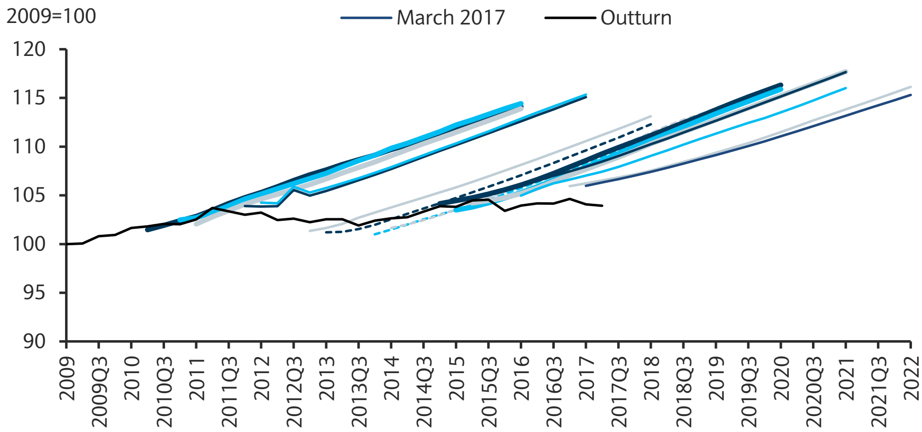
"While we continue to believe that there will be some recovery from the very weak productivity performance of recent years, the continued disappointing outturns, together with the likelihood that heightened uncertainty will continue to weigh on investment, means that we anticipate significantly reducing our assumption for potential productivity growth over the next five years in our forthcoming November 2017 EFO."

In line with other forecasters, it has consistently assumed a recovery in productivity growth

A weaker productivity profile has significant fiscal implications

Figure 1 shows the OBR's productivity profile versus outturns and how it has consistently expected a recovery that has not been forthcoming. Its move to a low productivity view has implications for the public finances, as a weaker productivity profile would reduce the receipts profile and, hence, the overall medium-term view on the public finances and the gross issuance and medium-term valuations of gilt asset swaps. What would be the fiscal effects of lower productivity? The direct effects are through lower tax revenues due to weaker wages and lower GDP growth, so ultimately a deterioration relative to the OBR's baseline forecasts. In the November 2016 *Economic and Fiscal Outlook*, the OBR ran a "weak productivity" scenario, in which it assumed that the recent weak productivity outturns were maintained over the forecast period. This allows us to have something of a view of the likely scale and size of any fiscal revisions that we might expect in next month's Budget.

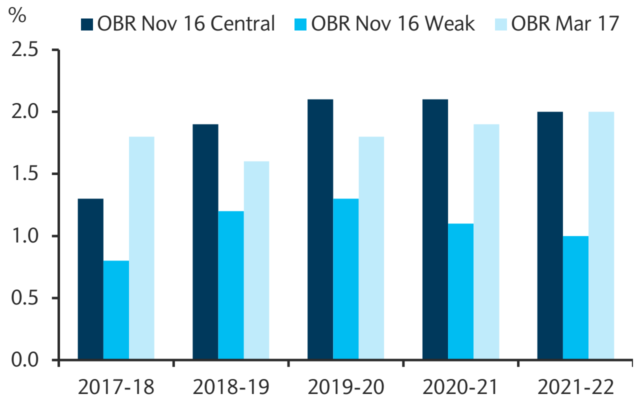
FIGURE 1
The OBR has consistently expected a recovery in productivity that has not come



Source: Office for Budget Responsibility

FIGURE 2

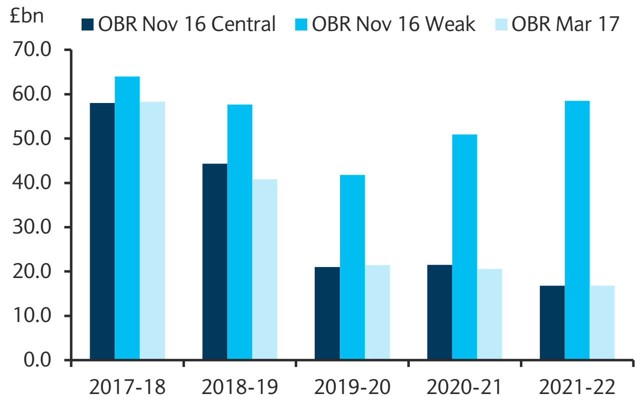
OBR: Nov 16's weak and central scenario vs. Mar 17 GDP



Source: Office for Budget Responsibility

FIGURE 3

Comparative fiscal deficits (PSNB, £bn)



Source: Office for Budget Responsibility

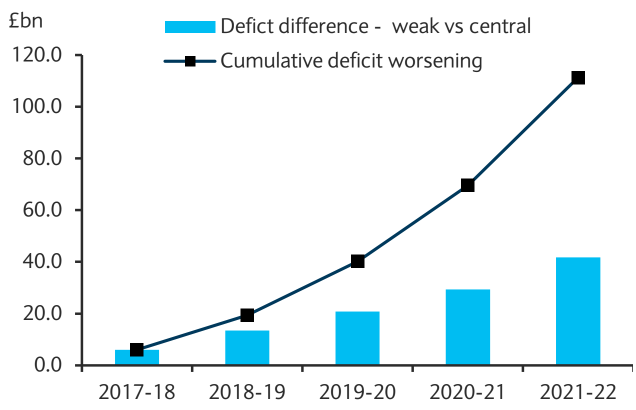
The OBR published a weak productivity scenario in November 2016, with growth at 0.8-15 p.a., compared with expectations of 1.8% p.a.

Under the weak scenario, the deficit was projected to increase £111bn over the forecast period

In the scenario explored in November 2016, the OBR reduced trend productivity growth to 0.8% p.a. over the forecast period and overall economic growth to about 1% p.a., versus its then central forecast of growth of about 2% and productivity growth returning to 1.6-1.8% p.a. by the end of the forecast period. In the March 2017 Budget, it assumed productivity growth of 1.4% in 2017, rising to 1.8% by the end of the period,. Figure 3 compares the OBR's November 2016 weak productivity and central scenarios in terms of growth and their latest forecasts, which are broadly similar. The forecasts for growth were broadly unchanged between November 2016 and March 2017. Additionally, Figure 4 shows the differing headline deficit forecasts. The 2016 version was done using identical inputs on yields, expectations for short rates and unchanged tax policy stance and are broadly similar to 2017's. What is telling is that rather than having the deficit on a declining path, under the weak productivity path the deficit continuing to rise as weaker receipts and higher expenditures push up borrowing and debt, while the tax receipts:GDP ratio stays broadly unchanged as revenues struggle to pick up. Perhaps the most striking finding from the OBR's sensitivity analysis is outlined in Figure 4. Simply comparing the headline deficit forecasts under the central scenario versus the weak productivity scenario outlined in November 2016 leads to a cumulative deficit increase of £111bn over the forecast period. The effects of weaker productivity compound over the forecast period, so by the final year of the forecast, the deficit forecast for FY2021-22 is £40bn worse that the central forecasts

FIGURE 4

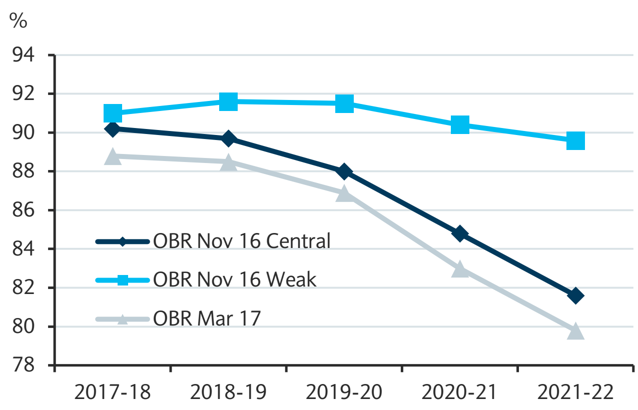
Weaker productivity drives a £111bn worsening in deficit …



Source: Office for Budget Responsibility

FIGURE 5

….and higher PSND with the peak pushed out (% GDP)



Source: Office for Budget Responsibility in November 2016. Note the November 16 forecast for the medium term was broadly similar to that published in March 2017. The profile assumes a static policy environment, whereas some attempt by the government to stem the worsening, possibly by trimming government expenditure, would seem the likely policy response.

The net debt ratio would also continue to rise for the next three years before stabilising at about 92%

The November 2016" weak productivity" projection is worse than current independent medium term forecasts - this suggests that the full implications of weak productivity have yet to be digested by the market

Figure 5 shows that the net debt:GDP ratio also fails to stabilise, remaining on an upward trajectory for the next three years, before beginning to fall back in FY2020-21 but still settling at a level 8pp higher than the central forecast. These debt dynamics would hardly appear favourable to ratings agencies. Indeed, it in its recent statement accompanying its decision to downgrade the UK's sovereign rating, Moody's noted that it expected debt:GDP to peak at 93% in 2019, only about 1.5pp below where the OBR's own weak productivity scenario had it peaking in 2018-19. So it would seem that the November weak productivity scenario is far closer to the assessment of the rating agency. Figure 6 compares the deficit forecasts under the November 2016 weak productivity scenario versus the March 2017 baseline forecasts but also the average of independent forecasts published by HM Treasury in August 2017: the independent external forecasts are higher than the OBR's March forecasts but are still consistently lower that the OBR's weak scenario. This suggests that forecasters, and by extension the market, have yet to fully discount the low productivity view that the OBR has discussed.

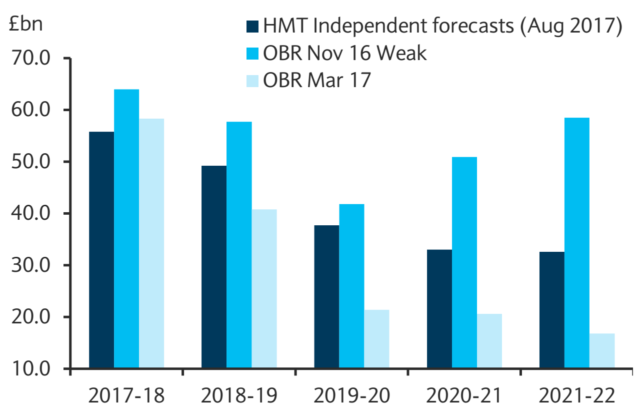
Using the weak productivity case as a baseline, we can arrive at a hypothetical medium-term financing profile

Assuming a static policy response, gross issuance would be £17-30bn higher per FY over the forecast period

What does a £111bn increase in the deficit over five years mean for gross issuance? The increase would not be one for one, since the difference between the PSNB deficit measure and the CGNCR cash deficit measure captures the timing of miscellaneous financial transactions, the treatment of cash flows and intra-public sector lending flows. Figure 7 shows the difference between the two measures estimated by the OBR at the last Budget. Because the overall headline deficit is forecast to decline, the CGNCR remains stubbornly high. This is due largely to the differing treatments of cash flows and accruals measures, the major one being the treatment of accruals of corporation tax. We need not concern ourselves with the technical difference between the measures, but as a starting point, we can use the difference to arrive at an estimate of how much of the deterioration in the PSNB could feed through into a worsening CGNCR and subsequently affect issuance. Figure 8 shows the current medium-term gross financing requirement versus an adjusted figure taking into account the November 2016 weak productivity scenario, the current estimated adjustment between the PSNB and CGNCR and the latest redemption profile; issuance is higher in every year of the forecast period. The medium-term cumulative gross financing requirement between FY2018/19 and FY2021/22 rises from £507bn to £619bn, an increase of £112bn, by adding £17-30bn to gross issuance per fiscal year.

FIGURE 6

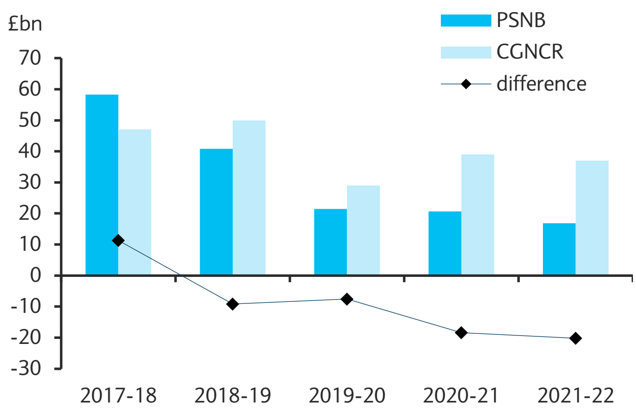
OBR PSNB vs HMT Independent external forecasts (£bn)



Source: Office for Budget Responsibility, HM Treasury

FIGURE 7

March 2017: CGNCR stays high even as PSNB falls (£bn)



Source: UK Debt Management Office, Office for Budget Responsibility, Barclays Research

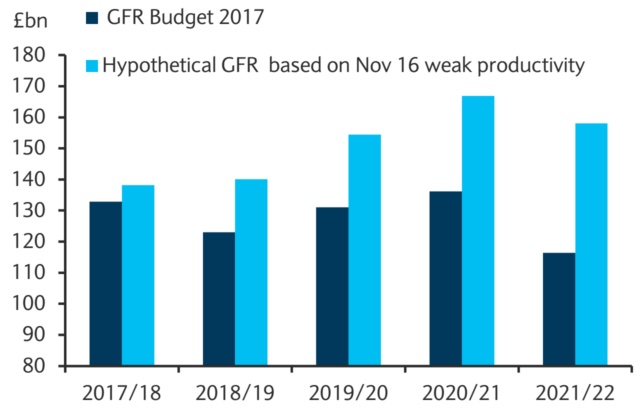
While this is an illustrative calculation, it does imply that medium-term asset swap spread valuations are vulnerable to correction in November's Budget

The 10y sector should underperform both outright and on the ASW curve

We emphasise that this is an illustrative calculation and just mechanically reads the lower productivity forecast through without any assumptions about a policy response to a perpetual structural deficit. We deem it unlikely that the government will want to admit that the structural deficit remains unclosed over the entire forecast period and there would be an appropriate policy response. However, an increased issuance profile should affect medium-term asset swaps valuations, especially in the longer maturity part of the curve. Figure 9 illustrates that in forward asset swaps space, the 10y sector continues to look rich to other sectors on the curve. Traditionally, it is likely to feel the most pressure in any material change in fiscal outlook. Typically, a £10bn worsening in the deficit is worth 3-4bp in asset swap tightening (ie, gilts underperforming swap rates) so 10y asset swap spreads may well underperform in the run-up to the Budget on 22 November, on both the curve and an outright basis as the market re-prices to a bleaker fiscal outlook.

FIGURE 8

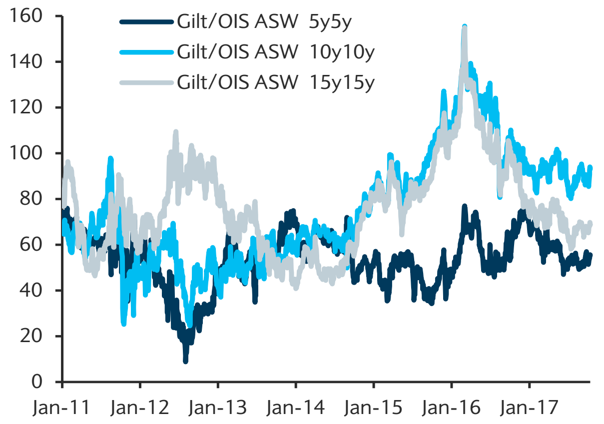
Gross financing requirement: £120bn worse?



Source: UK Debt Management Office, Office for Budget Responsibility, Barclays Research

FIGURE 9

Selected Gilt ASW forwards (OIS, bp)



Source: Barclays Research

INFLATION-LINKED MARKETS: UNITED KINGDOM

Concession Obsession

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Barclays, UK

Previously published as Concession Obsession: Sell UKTI 2022/2042 breakeven, *12 October 2017.*

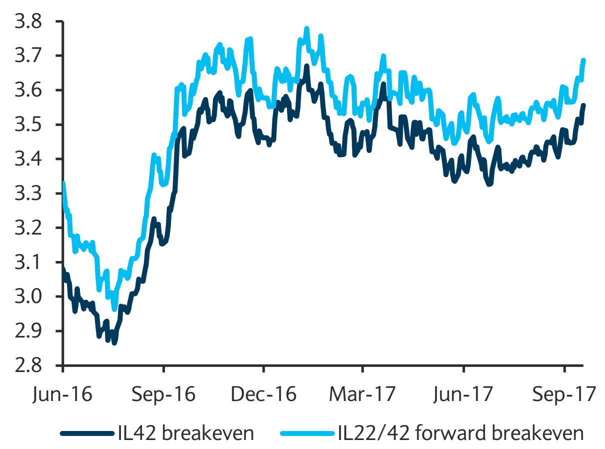
The 25-30y sector of the gilt linker curve stands out as rich ahead of heavy forthcoming supply. This ought to motivate some concession from the market. We recommend shorting the IL22-42 forward breakeven on a tactical basis.

The supply outlook for the gilt linker market becomes more active over the coming weeks, having been fairly light in August and September when just the IL26 and IL36 were auctioned. The IL42 is scheduled for auction on Tuesday 24 October, and then the UK DMO plans to hold a syndicated offering of a new index-linked gilt in the first two weeks of November with a maturity in the 30y area. The clearest gap for this potential transaction to take place is on Tuesday 7 November, with a 2023 conventional gilt auction scheduled for Thursday 9 November, the October inflation data release on Tuesday 14 November and a 2027 conventional gilt auction scheduled on Thursday 16 November. An auction of IL26 follows shortly thereafter on Tuesday 21 November. Barclays Research expects either a new UKTI 0.125% November 2048 or UKTI 0.125% March 2049 to be issued. UK breakevens have traded firmly recently, with the long-end of the market seemingly supported by real rate demand this week and the short end bolstered by rising energy prices and renewed GBP depreciation. However, market pricing at the front end does not appear overly stretched from a fundamental perspective.

The 25-30y sector of the breakeven curve is a different story. The IL42 breakeven has broken out of its fairly stable summer trading range and is now at the rich end of its post-EU referendum range. It looks even more expensive on the forward breakeven curve. We expect that the market will start to price in concession ahead of the heavy linker supply calendar in November, which markedly contrasts with a very light supply calendar in conventional gilts into year end. This should see linker breakevens come under pressure, in our view. Linker breakevens in the 25-30y sector also look expensive compared with RPI swaps. One argument against shorting linker breakevens in this part of the curve are forthcoming index drops; the IL22 from over-5y indices on 22 November being the most notable. Recent

FIGURE 1

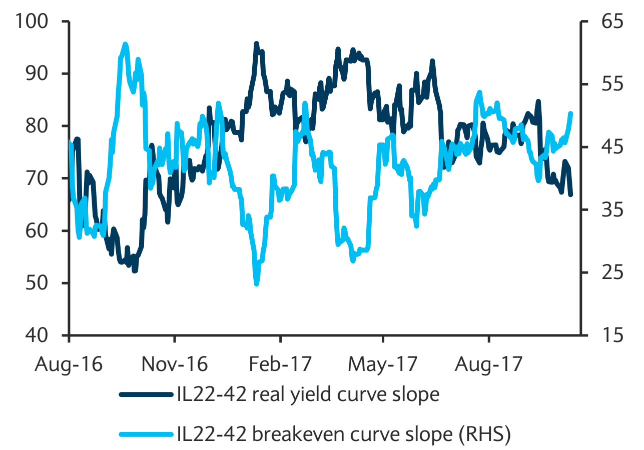
IL42 breakeven looks rich



Source: Barclays Research

FIGURE 2

30y area linkers have richened on the curve



Source: Barclays Research

comparable index drops have also not tended to have a clear discernible effect on the market, however. We think that the IL22 is already adequately discounted for its index drop and recommend selling the IL22-42 forward breakeven as a tactical trade. We target the forward breakeven to fall from 3.68% to 3.5%, with a stop at 3.75%. We suggest £20k/bp DV01 as a risk allocation and envisage holding the trade over a one month horizon.

JAPAN: RATES STRATEGY

Clear shift from foreign assets to Japanese equities

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Japanese investors showed a reduced appetite for foreign assets and a more aggressive stance toward Japanese equities in H2 FY17, according to a Barclays investor survey on 5-12 October. Investors have become increasingly less cautious toward JGBs.

This week: JGB curve twist-flattens

This week saw the JGB curve twist-flatten (Figure 1). The market traded largely in a range during the first half of the week given the limited price action in USTs and uncertainty around the lower house election on 22 October. While buying pressure strengthened somewhat in the superlong end with upward pressure on overseas yields taking a breather and Wednesday's 30y auction clearing smoothly, sellers took a slight upper hand in medium/long-term sectors with the rise in share prices. The 5y/30y flattened by 1.9bp. JGBs underperformed swaps across the curve. In equities, the Nikkei rose 1.3% from last Friday to 20955 on Thursday, its highest level in 21 years. Breakevens on 10y JGBi finished Thursday at 44.5bp, up 3.5bp from last Friday's close.

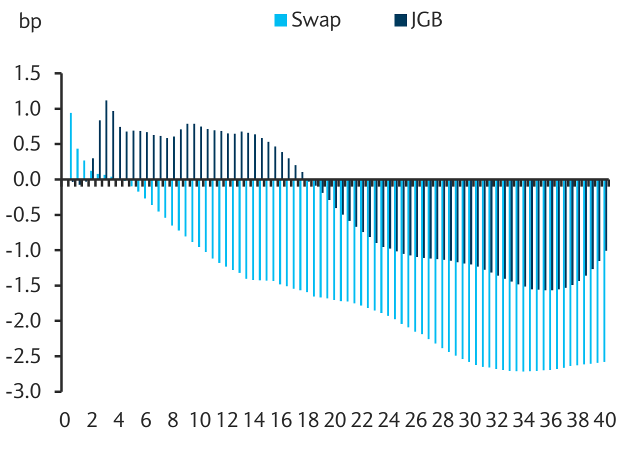
30y auction clears smoothly

The 30y auction (JX56) produced solid results with a lowest accepted price of 98.00 (0.884%), slightly exceeding the Bloomberg median forecast of 97.95 (0.886%), and a bid-cover of 3.98, the highest since March 2016 (Figure 2). This confirmed that investors have a certain level of demand at yields of slightly below 0.90%.

Developments around 22 October lower house election

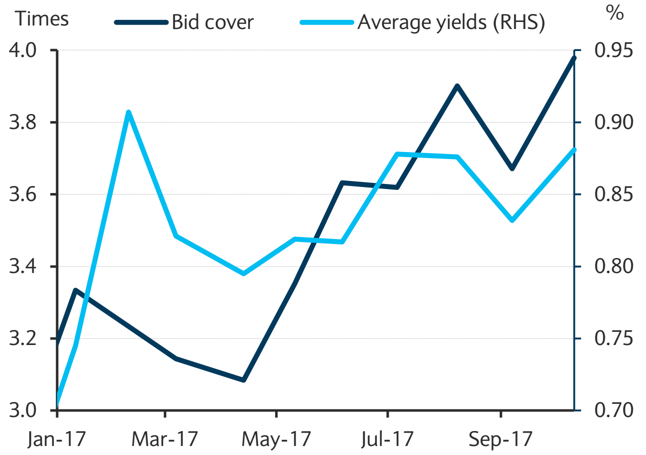
Monday marked the start of official campaigning for the lower house election on 22 October. A total of 1,180 candidates will be vying for seats. The Liberal Democratic Party (LDP) fielded the largest number of candidates (332), followed by the Japan Communist Party (JCP: 243) and the Party of Hope (PoH, 235). Tokyo Governor Koike, who heads the PoH, refrained from running in the election herself and although the party managed to field enough candidates to capture a majority of the seats (233), it appears unlikely to gain control of the government on its own. Any concerns that the BoJ will start to normalize monetary policy after the election may have eased somewhat. Although it now appears

FIGURE 1
JGB curve twist-flattens



Source: Barclays Research

FIGURE 2
30y auction clears smoothly



Source: MoF, Barclays Research

rather unlikely that the LDP-KP ruling coalition will fall short of a majority, the large number of unaffiliated voters suggests the LDP could still very well lose its single-party majority with the Abe administration forced to step down. In that scenario, we believe expectations for a revision of Abenomics, including QQE+YCC, would take the upper hand as the markets anticipate a change of administration, either within the ruling parties or with the current opposition parties taking control. In our view, the election continue to warrant attention as a major uncertainty (see *Lower house election update - Possibility of grand coalition*, 10 October 2017).

Next week: Focus on 20y auction, 5y auction, National Congress of the Communist Party of China

Next week's focus

In the week ahead, the domestic focus for the JGB market will be the 20y auction (17 October) and 5y auction (19 October). Data releases include September trade (19 October). The BoJ is scheduled to hold buying operations for 1-5y and 5-10y issues (16 October), 10y+ issues (18 October) and once again for 1-5y and 5-10y issues (20 October). In addition, developments among the various political parties ahead of the lower house election on 22 October will warrant attention, as will headlines around the next Fed Chair, the National Congress of the Communist Party of China (starting 18 October) and China Q3 GDP (19 October).

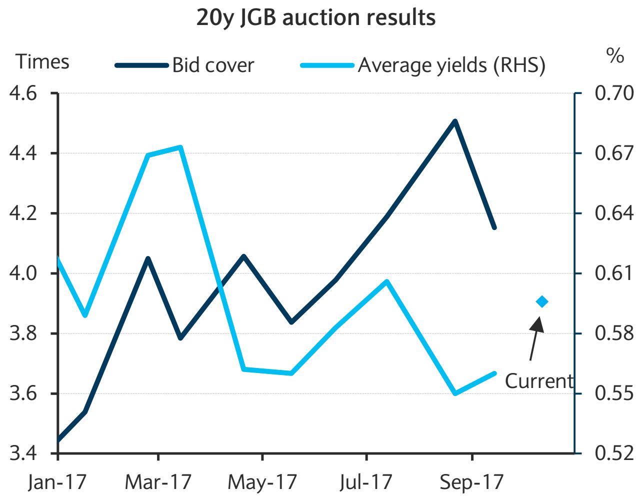
We expect ranged trade next week prior to the 22 October election

We expect the JGB market to stay in a range overall next week ahead of the lower house election on 22 October. Although the strengthening global equity markets could put upward pressure on yields, strong dip-buying appetite around current yield levels (0.60% in 20y, 0.90% in 30y) should keep the market in a range.

20y auction should clear smoothly

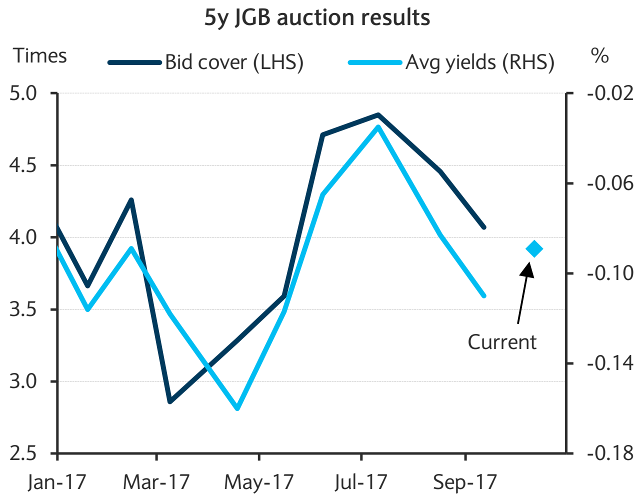
We expect the 20y auction to clear smoothly. Current yield levels (0.585% as of 12 October) exceed the average at the previous auction (0.56%), suggesting the issue is likely to attract firm demand from a wide range of investors, as it did last time (Figure 3). The easing of concerns around political risk ahead of the lower house election on 22 October and the light auction schedule in the second half of the month should also spur investor demand.

FIGURE 3
20y auction should clear smoothly at current yield levels



Source: MoF, Barclays Research

FIGURE 4
5y auction should also clear smoothly at current levels



Source: MoF, Barclays Research

5y auction also likely to produce decent results

We also expect the 5y auction to produce decent results. Current yield levels (-0.09% as of 12 October) exceed the average at the previous auction (-0.10%), suggesting the auction is likely to attract a certain level of demand (Figure 4). With three BoJ buying operations for 1-5y issues between the auction and the month-end, there will likely be short-term demand related to these operations in addition to short-covering needs.

This week's topic: Clear shift from foreign assets to Japanese equities

This section is an extract from Barclays Japanese Investor Survey: Clear shift from foreign assets to Japanese equities*, 12 October 2017.*

Survey results: Outlook for higher yields and equities still prevails

We conducted a Japanese investor survey for H2 FY17

We surveyed Japanese investors on their investment outlook for H2 FY17 (October 2017-March 2018) between 5 and 12 October. This marked our fourth such survey, following the ones conducted for H2 FY15 and for FY16 and FY17 as a whole. Banks accounted for 37.8% of the respondents, insurers for 8.9%, asset managers (AM) for 37.8% and others (mainly FX-related investors) for 15.6% (Figure 5). The breakdown by asset coverage was as follows: JGBs (26.7%), FX (20.0%), Japanese equities (17.8%), foreign bonds (15.6%), foreign equities (2.2%) and others (mainly investors covering multiple asset classes; 17.8%).

Foreign bond investment appetite DI turns negative for first time, while Japanese equities increase in popularity

Japanese investors continued to show a weak appetite for foreign bond investment in H2 FY17. Our diffusion index (DI) measuring investor appetite (% aggressive-% cautious) remained largely unchanged for foreign bonds (+4.7) versus +4.6 in the previous survey) (Figure 6). Also, the DI for foreign equities fell to +25.6 after spiking to +34.1 in the previous survey, confirming a cautious stance toward foreign assets in general. Meanwhile, the DI for JGBs came to -6.8, remaining in negative territory, but to a lesser degree than in the previous survey (-20.5), suggesting investors have become less cautious toward JGBs, with their stance now virtually the same as it is toward foreign bonds. The DI for Japanese equities surged to +40.9 from the previous survey's +11.4, beating the DIs for all other assets. As such, investor appetite for Japanese assets appears to have improved considerably over the past six months. The DI for others (eg, credit), added as a choice in our previous survey, increased to +32.6 from +25.0, with the asset category remaining the second-most popular.

FIGURE 5

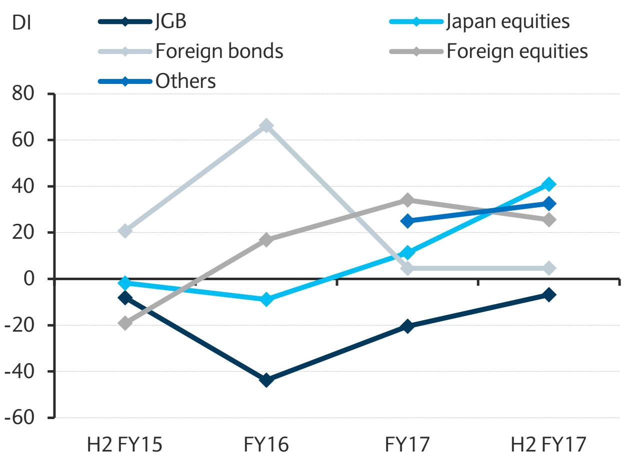
Japanese investor survey respondents by institution type, asset coverage

Institution type		Asset coverage	
Banks	37.8%	JGBs	26.7%
Insurers	8.9%	Japan equities	17.8%
AM	37.8%	Foreign bonds	15.6%
Others	15.6%	Foreign eq.	2.2%
		FX	20.0%
		Other	17.8%
		Total	45

Source: Barclays Research

FIGURE 6

Changes in investment stance DI



Note: DI measures % aggressive - % cautious. Others represent other assets such as credit. Source: Barclays Research

Investors continue to forecast higher yields and share prices

This change in investment stance appears to reflect optimism toward risk assets. The DI measuring whether prices would "rise or fall (yields would decline or rise, respectively, for bonds)" for each asset class came to -68.9 for foreign bonds and -42.2 for JGBs, indicating that most investors expected those assets to fall (yields to rise; Figure 7). These were more deeply negative readings than in the previous survey (-27.3 and -31.8, respectively), indicating a strengthened outlook for yields to rise. At the same time, investors remained optimistic on Japanese equities (to +51.1 from +40.9) and foreign equities (to +55.6 from +45.5) amid the continuing global economic expansion. Meanwhile, the DI for the USDJPY rose to +42.2 from +18.2 with 71.1% of the respondents forecasting a higher USDJPY and 28.9% projecting a lower USDJPY. Their expectations for a higher USDJPY may reflect the outlook for rising overseas yields. In part, this outlook for higher Japanese equities and JPY depreciation may be driven by expectations for the ruling Democratic Party (LDP) to retain a majority of seats in the lower house (hence, Abenomics to continue) as a result of the general election on 22 October (see discussion below).

Outlook for reduced FX hedging strengthens

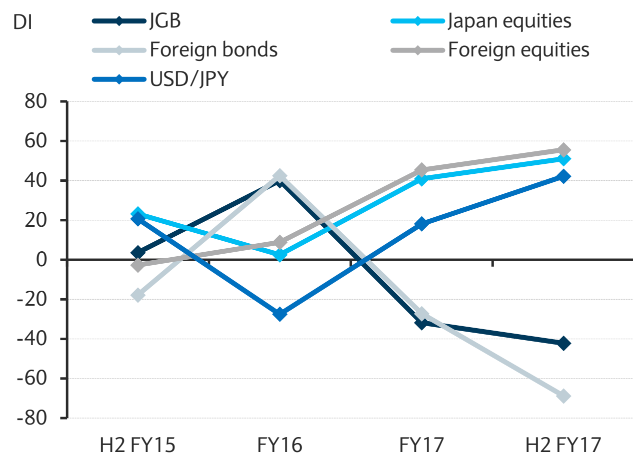
Investors appear to have become more cautious on FX hedging in overseas investment with the strengthening outlook for higher USDJPY. Most (50.0%) said their stance on FX hedging will be largely unchanged in H2 FY17 versus H1 FY17, while 38.6% said they would become more cautious (reducing their hedge ratios) and 11.4% said they would be more aggressive (increasing their hedge ratios; Figure 8). Compared with the results of our previous survey, the share identifying their stance as largely unchanged continued to account for a majority, while the "cautious" share continued to expand (from 20.5% in the previous survey and 6.3% in the survey before that) and the "aggressive" share continued to shrink (from 25.0% in the previous survey and 60.0% in the survey before that). It appears that more investors have become averse to the deteriorating returns on FX-hedged foreign bonds as FX hedging costs rise.

European bonds preferred in foreign bond investment

Next we asked investors about their foreign bond investment stance by region. The DI measuring the appetite for a specific country/region's foreign bonds (% aggressive - % cautious) was highest for Europe (+33.3), followed by the US (+24.4), EM (0) and others (-7.3; Figure 9). When we asked the same question in our previous survey, the US (+30.0) exceeded other DM (+21.4), but the preference for European bonds strengthened this time around, likely due to deteriorating returns on FX-hedged US bonds as the Fed normalizes monetary policy more aggressively than the ECB.

FIGURE 7

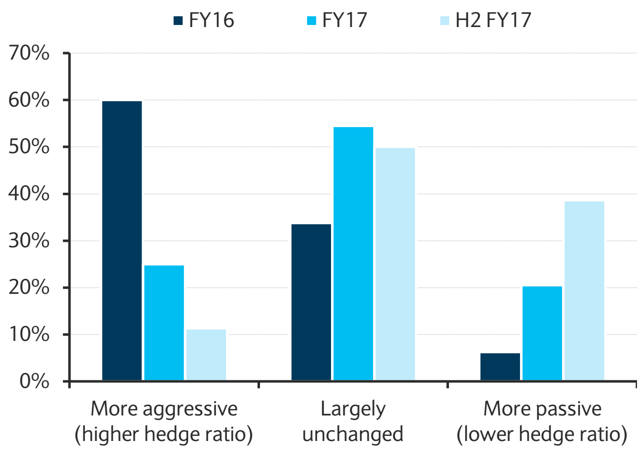
DI measuring expectations for asset performance



Note: DI measures % rise (fall for yields) - % fall (rise for yields).
Source: Barclays Research

FIGURE 8

How will Japanese investors change their FX hedging stance linked to overseas investment in FY17 H2 (vs FY17 H1)?



Source: Barclays Research

Mainstream outlook for general election: Ruling parties win, but retain less than 2/3

We asked investors to project the outcome of the general election on 22 October – currently the biggest focus on the domestic front. "A majority for the LDP-KP" (73.3%) received the largest response, with "a two-thirds majority for the LDP-KP" (15.6%) coming in a distant second, followed by "a majority for the LDP-KP + PoH (Party of Hope)" (11.1%) and "LDP steps down" (0.0%; Figure 10). Although few expected the LDP-KP to retain a two-thirds majority, most appeared to expect a victory for the ruling parties in the absence of strong momentum for the opposition in public opinion polls (Figure 11). Responses received closer to the survey deadline (after the three-day weekend on 7-9 October) showed a stronger tendency to forecast a ruling party victory, likely reflecting recent media coverage indicating that the ruling parties were in the lead.

Distribution of potential scenarios widens sharply

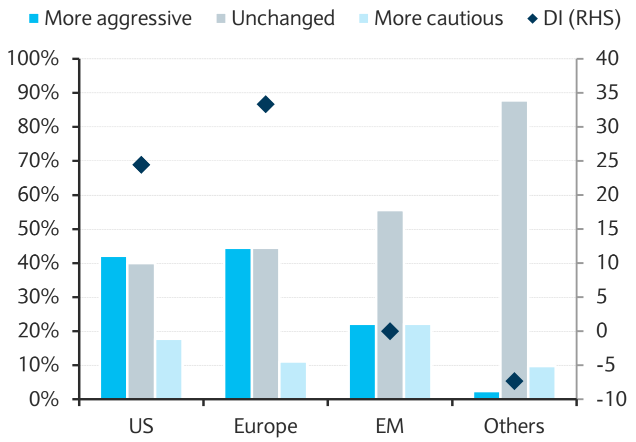
If the LDP-KP retain a majority, but with fewer than two-thirds of the seats, the distribution of potential scenarios for the Abe administration, economic policy and the markets could widen sharply, depending on the scope of loss. While a limited loss should eventually result in expectations for continuation of Abenomics policy, if LDP-KP declines to substantially below two-thirds line, the medium-term scenario may be influenced by any structure of cooperation with the opposition (especially the PoH) aimed at amending the Constitution. Expansionary economic policies could bring JPY depreciation, an equity rally and bear-steepening in JGBs, and there could also be a risk of expectations for extreme economic policies (see *Hope and reality - Japan Lower House election scenarios, 5 October 2017)*

Strong concern that further delays in consumption tax hike will raise foreign currency funding costs

We also asked about the market impact of any delay in the scheduled consumption tax hike – another domestic factor. Among those expecting some kind of market impact, the most popular response was a rise in foreign currency funding costs (46.7%), followed by a rise in (especially superlong) JGB yields (42.2%), JPY depreciation (24.4%) and "other" (6.7%); 26.7% expected no particular impact (Figure 12). Some of those expecting a rise in foreign currency funding costs also cited a JGB downgrade under "other." As such, there appears to be a strong concern that foreign investors would have less of an incentive to act as counterparties to provide dollar-funding for Japanese investors and demand wider spreads (increasing foreign currency funding costs) if they perceived a credit risk associated with sovereign debt or the banking sector due to a downgrade linked to reduced fiscal discipline. On the other hand, concerns about a rise in (especially superlong) JGB yields and JPY depreciation may be relatively limited overall in light of the subdued market response to past delays in the consumption tax hike.

FIGURE 9

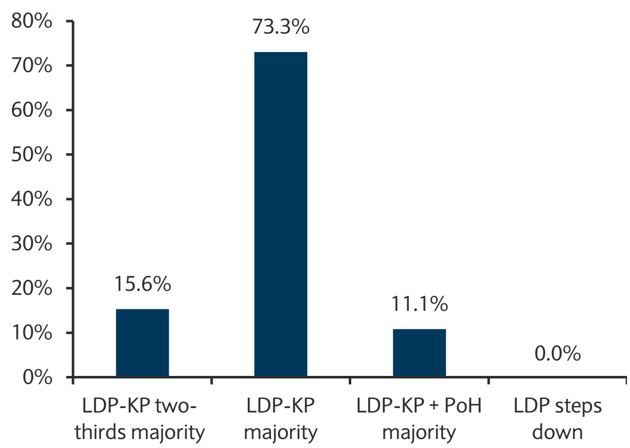
How will Japanese investors change their investment stance on foreign bonds by region (vs H1 FY17)?



Source: Barclays Research

FIGURE 10

What result do you forecast for the general election on 22 October?



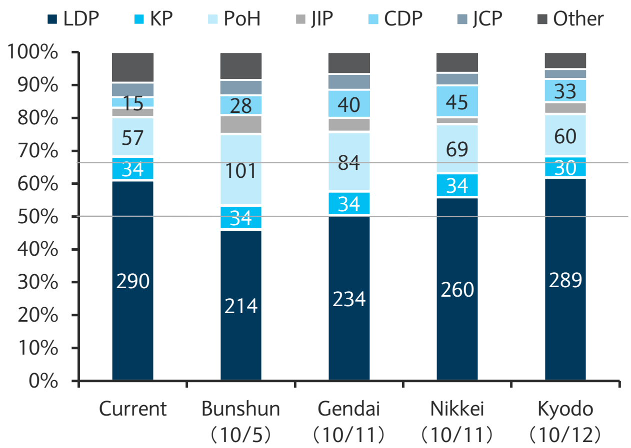
Source: Barclays Research

We do not expect the foreign currency funding environment to deteriorate sharply due to downgrade concerns

We do not forecast sharp deterioration in the foreign currency funding environment of Japanese investors due to downgrade concerns. Based on our analysis, about 70% of the movement in USDJPY cross-currency basis moves over the past several years can be explained by USD-side factors and these factors have improved (ie, tightening) since the end of last year[12]. Also, Japanese investors have become more cautious in their overseas investment this fiscal year, so any effect from Japan's fiscal deterioration, which is already widely known, may be limited.

FIGURE 11

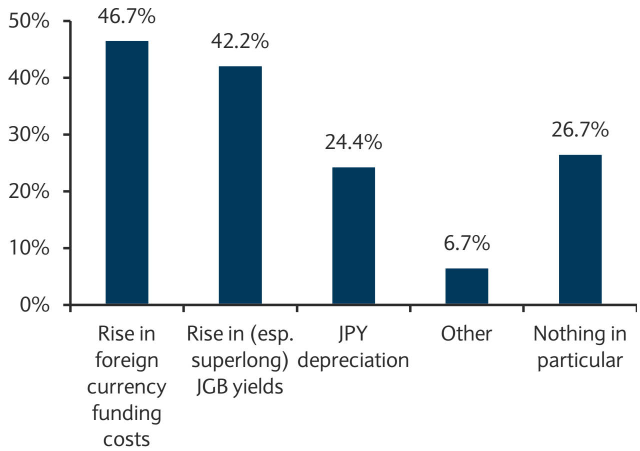
Election survey predictions



Note: Current seat total is 475. This will be reduced to 465 in this month's election. Source: Nikkei, Kyodo, Gendai, Bunshun, Barclays Research

FIGURE 12

What would be the impact of any delay in the consumption tax hike? (multiple responses)



Source: Barclays Research

JGB：Domestic investors start to return gradually to JGBs

The gap in JGB-foreign bond investment stances has largely disappeared

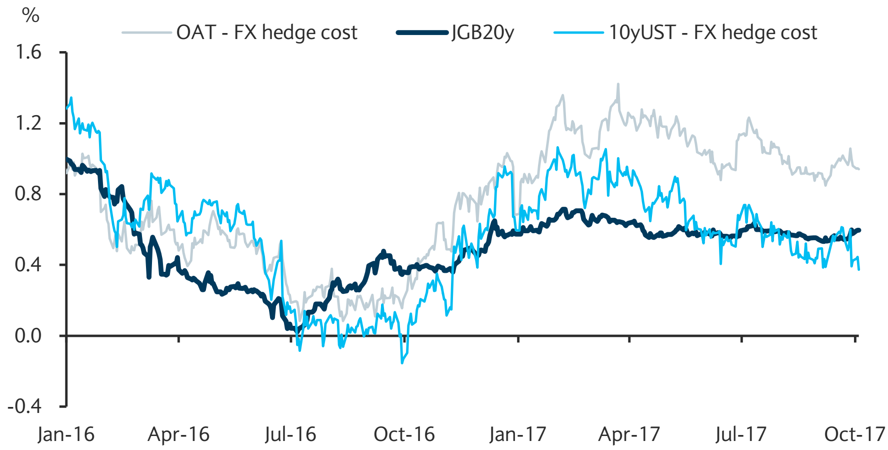
As in the previous survey, investors tended to forecast a continued weakness in the performance of the JGB market (rise in yields) and indicated a cautious investment stance. However, the investment stance DI indicated that the cautiousness toward JGBs diminished even more than in the previous survey, suggesting the gap between stances toward JGBs and foreign bonds, which widened sharply after the introduction of the negative interest rate policy (NIRP), has narrowed sharply. This likely reflects pressure on Japanese investors to revise their UST-centered investment strategies amid expectations for FX-hedged UST returns to deteriorate with rate hikes by the Fed (Figure 13). Although most Japanese investors indicated an aggressive stance toward risk assets, including Japanese equities, it appears that an increasing number feel pressured to shift cautiously back into JGBs.

We expect the presence of Japanese ALM investors to recover gradually

It is difficult to expect much of an increase in the presence of investors (including some foreign investors) seeking capital gains given the entrenched expectations for a rise in JGB yields. However, the presence of Japanese ALM investors (eg, banks and life insures) may be likely to recover gradually from current historically low levels given the cautious stance toward foreign bond investment. We expect the sub-10y sector to be rangebound through H1 18 under the BoJ's strong yield curve controls, while the superlong end remains under bear-steepening pressure, especially in the 30y+ sector, due to fragile supply-demand conditions, but with any such bear-steepening pressures curbed by cautious flows back into JGBs by some Japanese ALM investors[13]

[12] See *Japan Portfolio Rebalancing Update: Shift to cautious and selective stance*, 3 August 2017
[13] see *Ranged by YCC with an eye beyond it*, 22 September 2017

FIGURE 13
Returns on FX-hedged foreign bonds and 20y JGBs



Source: Bloomberg, Barclays Research

GLOBAL SUPPLY CALENDAR

	Country	Bond	Coupon	Maturity	Size - bn
Euro Area					
Oct-17	Italy	New 20y BTP			4.00
12-Oct-17	Italy	New 3yr BTP Auction (3.5-4bn)	0.20%	15-Oct-20	4.00
12-Oct-17	Italy	7y BTP Auction (1.5-2bn)	1.45%	15-Nov-24	2.00
12-Oct-17	Italy	30yr BTP Auction (1-1.5bn)	3.45%	01-Mar-48	1.50
17-Oct-17	Germany	2y Schatz Auction		13-Sep-19	4.00
18-Oct-17	Germany	30y Bund Auction		15-Aug-48	1.00
18-Oct-17	Portugal	9y PGB Auction	2.88%	21-Jul-26	0.50
18-Oct-17	Portugal	30y PGB Auction	4.10%	15-Feb-45	0.25
19-Oct-17	Spain	3y SPGB	0.05%	31-Jan-21	1.25
19-Oct-17	Spain	10y SPGB	1.45%	31-Oct-27	1.50
19-Oct-17	Spain	30y SPGB	2.90%	31-Oct-46	1.00
19-Oct-17	France	5yr FRTR	0.00%	25-Mar-23	4.50
19-Oct-17	France	3yr FRTR		25-Feb-20	3.00
19-Oct-17	France	OATi/ei Auctions			1.50
23-Oct-17	Belgium	7y BGB Auction	0.50%	22-Oct-24	1.00
23-Oct-17	Belgium	10y BGB Auction	0.80%	22-Jun-27	1.00
23-Oct-17	Belgium	15y BGB Auction	1.00%	22-Jun-31	0.50
25-Oct-17	Germany	10y Bund Auction		15-Aug-27	3.00
26-Oct-17	Italy	BTPei Linker Auction			1.00
26-Oct-17	Italy	New CTZ	0.00%	28-Dec-19	4.00
30-Oct-17	Italy	7yr CCT Auction	FRN	15-Oct-24	1.50
30-Oct-17	Italy	5yr BTP Auction	0.90%	01-Aug-22	2.50
30-Oct-17	Italy	10yr BTP Auction	2.05%	01-Aug-27	3.00
02-Nov-17	Spain	5y SPGB		30-Apr-23	1.50
02-Nov-17	Spain	10y SPGB Auction	1.45%	31-Oct-27	1.50
02-Nov-17	Spain	15y SPGB Auction	2.35%	30-Jul-33	1.00
02-Nov-17	France	10y OAT		25-Nov-27	5.00
02-Nov-17	France	20y OAT	1.25%	25-May-36	3.00
07-Nov-17	Austria	RAGB Auction Cancelled			
07-Nov-17	Germany	Inflation Linked Auction			0.50
08-Nov-17	Germany	5y OBL Auction		07-Oct-22	3.00
09-Nov-17	Ireland	20y IRISH Auction	1.70%	15-May-37	1.00
13-Nov-17	Italy	3yr BTP Auction			2.75
13-Nov-17	Italy	7y BTP Auction	1.45%	15-Nov-24	2.25
13-Nov-17	Italy	15yr BTP Auction	2.45%	01-Sep-33	0.75
Japan					
13-Oct-17	Japan	Liquidity Enhancement Auction			550
17-Oct-17	Japan	20y JGB Auction			1000
19-Oct-17	Japan	5y JGB Auction			2200
24-Oct-17	Japan	Liquidity Enhancement Auction			500
26-Oct-17	Japan	2y JGB Auction			2200
01-Nov-17	Japan	10y JGB Auction			2300
07-Nov-17	Japan	Liquidity Enhancement Auction (1-5y)			200
09-Nov-17	Japan	30y JGB Auction			800
UK					
19-Oct-17	UK	10y Gilt Auction	1.25%	22-Jul-27	2.50
24-Oct-17	UK	25y Linker Auction	0.625%	22-Nov-42	1.10
Nov-17	UK	New 30y Linker Syndication			4.00
09-Nov-17	UK	6y Gilt Auction	0.75%	22-Jul-23	2.75
US					
19-Oct-17	US	30y TIPs Auction			5
24-Oct-17	US	2y Note Auction			26
25-Oct-17	US	2y FRN Auction			15
25-Oct-17	US	5y Note Auction			34
26-Oct-17	US	7y Note Auction			28
07-Nov-17	US	3y Note Auction			24
08-Nov-17	US	10y Note Auction			23
09-Nov-17	US	30y Bond Auction			15

Note: Shaded cells are unconfirmed Barclays estimates.
Source: Barclays Research

GLOBAL BOND YIELD FORECASTS

US Treasuries							
%	Fed funds	3m Libor	2y	5y	10y	30y	10y BE
Q4 17	1.25-1.50	1.63	1.60	1.95	2.30	2.85	1.75
Q1 18	1.25-1.50	1.68	1.75	2.05	2.40	2.90	2.00
Q2 18	1.50-1.75	1.85	1.85	2.10	2.40	2.90	2.10
Q3 18	1.50-1.75	1.93	1.90	2.10	2.40	2.90	2.20

US swap spreads				
bp	2y	5y	10y	30y
Q4 17	20	10	0	-30
Q1 18	20	15	5	-25
Q2 18	20	15	10	-20
Q3 18	20	15	10	-15

Euro government (Germany) bond yield							
%	Deposit Rate	3m Euribor	2y	5y	10y	30y	10y BE
Q4 17	-0.40	-0.33	-0.60	-0.15	0.55	1.30	1.20
Q1 18	-0.40	-0.30	-0.55	-0.10	0.60	1.35	1.20
Q2 18	-0.30	-0.24	-0.50	-0.05	0.65	1.35	1.30
Q3 18	-0.30	-0.20	-0.45	0.00	0.75	1.35	1.40

Euro area swap spreads				
bp	2y	5y	10y	30y
Q4 17	45	45	40	35
Q1 18	40	40	35	30
Q2 18	40	40	35	30
Q3 18	40	40	35	30

UK government							
%	Bank rate	3m	2y	5y	10y	30y	10y BE
Q4 17	0.50	0.57	0.55	0.90	1.40	2.00	3.10
Q1 18	0.50	0.58	0.60	1.00	1.45	2.05	3.10
Q2 18	0.50	0.58	0.65	1.05	1.55	2.10	3.15
Q3 18	0.50	0.58	0.65	1.05	1.55	2.10	3.15

UK swap spreads				
bp	2y	5y	10y	30y
Q4 17	45	30	-10	-30
Q1 18	47	30	-12	-30
Q2 18	47	30	-15	-30
Q3 18	49	32	-17	-32

Japan government							
%	IOER	3m Libor	2y	5y	10y	30y	10y BE
Q4 17	-0.10	0.00	-0.15	-0.10	0.05	0.90	0.40
Q1 18	-0.10	0.00	-0.10	-0.05	0.10	0.95	0.40
Q2 18	-0.10	0.00	-0.10	-0.05	0.10	0.95	0.40
Q3 18	-0.10	0.00	-0.10	0.00	0.15	1.00	0.45

Japan swap spreads				
bp	2y	5y	10y	30y
Q4 17	15	20	20	0
Q1 18	15	20	20	0
Q2 18	15	20	20	0
Q3 18	15	20	20	0

Source: Barclays Research

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